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# Agricultural Co-operation and the Development of Peasant Agriculture in Zimbabwe, with Special Reference to the Provinces of Mashonaland East, Mashonaland West and Masvingo

by

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## ABSTRACT

Peasant agriculture provides a direct source of livelihood for about 75 per cent of Zimbabwe's population. Its performance, however, has been disappointing, despite government efforts to increase its productivity, and all hopes of sustaining the country's rapidly growing population seem likely to be frustrated unless some significant progress can be made.

This study, undertaken in three provinces - Mashonaland East, Mashonaland West and Masvingo - investigates the causes of this poor performance in peasant agriculture; evaluates the effectiveness of several agricultural development strategies now being used; and assesses the peasant farmer's ability to adopt modern agricultural techniques. Alongside a brief examination of the agricultural extension services, and of the multi-purpose African Development Fund, the thesis investigates the contribution being made by agricultural co-operatives.

Participant observation, three separate questionnaires and unstructured interviews were used to collect data from 212 peasants, thirty agricultural extension assistants, fourteen government co-operative officers and assistants, twelve peasant agricultural promoting organisations, and from many other sources. Useful statistical data were also obtained from Government reports and historical documents.

The peasants' level of adoption of modern agricultural practices, their agricultural productivity per unit factor of production, and their family incomes are used as criteria to measure the effectiveness of agricultural co-operation as an agricultural development strategy. Evidence suggests that peasant co-operatives have much to commend them in any attempt to improve peasant agriculture in Zimbabwe.

## PREFACE AND ACKNOWLEDGEMENTS

That peasant agricultural productivity is low and that peasant farmers are largely responsible for this poor performance are very common generalisations in a large body of development literature. Such attitudes, especially among development planners, have led to the designing and implementing of inappropriate development strategies. The failure of such strategies has again been blamed on the 'imperviousness' and irrationality of peasant farmers.

This study has set out to discover the causes for the underdevelopment of Zimbabwean peasant farming and to assess the appropriateness and the effectiveness of a given set of strategies. It is hoped that its findings will generate an understanding of the geographical intricacies involved in Zimbabwean peasant agriculture, and then lead to the formulation and application of appropriate and relevant development strategies.

The success of the study in achieving these objectives has been largely due to the assistance, co-operation and generous support of several organisations and many people - friends and relatives - too many to name in person. I am particularly grateful to the British Council for the generous offer of a Technical Co-operation Award which enabled me to pursue this course; to the University of London Central Research Fund for their contribution towards research costs in the field; and to the School of Oriental and African Studies for the fieldwork additional award which enabled me to fly to Zimbabwe for this research.

I owe sincere thanks to all those organisations listed in Appendix IId and to the Zimbabwean Government Ministries of Agriculture, and of Lands, Resettlement and Rural Development for furnishing me with valuable data on peasant agriculture. I am very grateful to Silveira House, especially the Centre's Director the Rev. John Dove and his senior staff

in the Agricultural Department - Dr. Chitsike and Messrs. Mukonyora and Nyamuramba - for the untiring support, co-operation and hospitality they offered me so generously throughout my fieldwork. I also wish to thank the national and Masvingo Provincial leadership of the Association of Master Farmers' Clubs and all those agricultural extension staff who, together with the two non-government co-operative organisations, enthusiastically helped me to organise the farmers for interviews. The collection of primary data could have been a formidable task without the co-operation, keenness and support of the peasant farmers whom I thank most deeply. My special thanks also go to my special research assistant, G. Mashonganyika, whose indefatigable support in collecting data was very valuable.

I should, indeed, express my sincere gratitude and personal appreciation to my research supervisor, Professor B. W. Hodder, who so patiently guided the development of this study, critically commented on my ideas and meticulously shaped the style of my writing to enable this thesis to be a coherent readable piece. I am also thankful to many members of the staff, particularly Dr. J. A. Allan and Dr. K. Baker, and my colleagues in the Geography Department, who generously shared their ideas and views with me for three years. I wish to thank Miss Elizabeth Johnson for her cartographic expertise in the reproduction of maps and diagrams, and Mrs. M. Young for her careful and neat typing of the final thesis.

Finally, I owe affectionate gratitude to my wife, Albertina, and my mother, Nyembesi who, in their different ways, have been a reliable source of inspiration, encouragement and material and moral support throughout my course. I am also warmly grateful to the Mukurumbira family and many other friends for their generous help in many ways during the preparation for this thesis.

However, none of the organisations and people mentioned above bears any responsibility for the errors, omissions, views and conclusions expressed in this thesis; they are my own.

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PART I

INTRODUCTION

Part I contains chapters one and two. These two chapters deal with the introduction to the whole thesis. This introduction covers the major problem which is to be investigated and the aims and objectives the study hopes to achieve. It defines the main concepts of the thesis and discusses the broad conceptual framework - theories of agricultural co-operation and the philosophical foundations of the research - which form the basis of the study, and formulates the major research hypotheses that provide guidelines to the research enquiry. Part I also examines the spatial and temporal domains of the study and analyses the dominant investigative techniques applied in the collection and analysis of the data used in the whole thesis.

# CHAPTER 1

## INTRODUCTION AND THEORETICAL CONSIDERATIONS

### 1. INTRODUCTION

> "Agriculture in the Third World has frequently been denounced as barbarous, primitive and wasteful in its use of resources" (Morgan, 1978) (1).

#### 1.01 The Problem and Its Setting

Farming in most developing economies[1] of Africa, Asia and Latin America contains two distinct sectors - the modern commercial sector and the traditional peasant sector (Clayton, 1964; Lombard and Tweedie, 1972; Schultz, 1964; Yudelman, 1964). According to Boeke's (1953) theory of cultural dualism, these two sectors consist of two different socio-economic systems, whose members are characterised by divergent attitudes toward increasing productivity.[2]

In these countries, agriculture - both modern commercial and traditional peasant - provides a direct source of livelihood for 70 to 80 per cent of their rapidly increasing populations (Anthony et al., 1979; Arnon, 1981; Grigg, 1970; Hodder, 1978; Webster and Wilson, 1980; de Wilde, 1967) and accounts, on average, for almost one-third of the gross domestic product of these countries, for nearly half their total value of exports and for a large proportion of the raw material for their local industry. Some improvements have been noted in the modern commercial sector. But, unfortunately, the performance and capacity of the peasant sector has been progressively deteriorating (FAO's Fourth World Food Survey, 1979). Zimbabwe, the focus of this thesis, has been no exception. More particularly, the increasing inability of Zimbabwe's peasant farming to feed the country's rapidly expanding population and the need for the peasant sector to improve its efficiency and productivity has been of great concern for many govern-

ment officials and development 'experts'. In their efforts to discover the causes for the poor performance of peasant farming, these 'experts' advance many explanations which lay the blame almost entirely on the peasants' barbarous, primitive and wasteful farming practices, peasant ignorance of improved farming technology, laziness, superstition and lack of economic motivation (Hughes, 1974; Jordan, 1974; Riddell, 1978; Weinrich, 1975; Yudelman, 1964). Many development plans have therefore been accordingly formulated and implemented. But despite fifty years of efforts, the results have been disappointing.

The present study has set for itself the general task of investigating the underdevelopment of Zimbabwean peasant agriculture and the effectiveness of selected strategies for its transformation.

## 1.02 Aims and Objectives

The success of this study depends, to a considerable measure, on the clarity of what the research sets out to achieve. In selecting the underdevelopment of Zimbabwean peasant agriculture and the strategies conducive to its transformation as the central problem of its enquiry, the research sets out to achieve the following two major aims:-

1. to understand the geography of peasant agriculture, and the problems and prospects of its development in Zimbabwe; and
2. to examine the body of knowledge necessary for the effective planning of peasant agricultural development policy and programmes in the country.

The geography of peasant agriculture, in the context of this thesis, refers to those farming characteristics which are functionally and operationally related through what Henshall (1967) calls circulating movements (of money, labour, etc.), directed towards the production of

distinctive spatial cropping patterns and peculiar livestock systems. In order to understand these characteristics, the study investigates and analyses the typical land-use patterns and the idiosyncratic peasant production methods and techniques, and the cropping and livestock varieties produced. It also examines and critically appraises the role of major Zimbabwean peasant farming development strategies in the diffusion of agricultural innovations. Among the main strategies to be discussed will be the agricultural extension service and three forms of agricultural co-operation. This, it is hoped, will enable the thesis to identify the dominant decision-making criteria responsible for the peasant adoption of new agricultural innovations.

## 1.03 Definitions of Major Concepts

An examination of the title of this thesis reveals three major terms - agricultural co-operation, development and peasant agriculture. All these concepts possess a multitude of meanings. This tends to diminish their usefulness for the purposes of research analysis and 'scientific' communication. Precise definitions which prevent such analytical ambiguity are therefore necessary.

### (a) Agricultural Co-operation

Co-operation, in its economic context as opposed to its sociological sense, indicates any form of economic or social organisation in which the stress is laid on working together in harmony as against competition or opposition. Such an organisation is generally known as a co-operative or a co-operative society, and is a familiar concept in both developed and developing economies. Yet despite such familiarity, there does not seem to be a universally agreed definition (Draheim, 1952; Helm, 1968) because a co-operative organisation can adapt itself to a variety of different purposes (Figure 1.1) and widely diverging economic

and social systems (Valko, 1957 and 1961). However, most of the definitions attempted seem to be based on the Rochdale principles as set out in Appendix Ia (Agrawal et al., 1971; Andreou, 1977; Anschel et al., 1969; Bedi, 1971; Bhuleshkar, 1973; Dore, 1971; Helm, 1968; Hunter, 1976).

Bearing these divergent views and possibilities in mind, it seems appropriate to propose a definition which is relevant and applicable to the Zimbabwean situation. For the purpose of this research, agricultural co-operation is therefore defined as a form of economic organisation among a group of farmers or peasants, in order to pool together their capital resources, their collective expertise and, sometimes, their collective labour, for the purpose of acquiring a range of farm requisites, for the collective sale of farm produce, and for the purpose of making advances of capital or credit to the members, either out of their own resources or out of money borrowed for the purpose of their joint guarantee, or advanced by a government or voluntary agency. Two features seem to stand out clearly from this definition. First, this definition is silent on many aspects (e.g. patronage rebates, democratic control) of the classical model of economic co-operation. Such aspects are ignored here, either because they are inapplicable in the Zimbabwean context or because they are tacitly understood. Secondly, although the co-operatives may also cater for non-economic needs of the members the emphasis here is, for obvious reasons, on the economic activities of the co-operators.

(b) Development

Development is one of those terms which has been used with such frequency that its meaning has been taken for granted. This tends to lead to gross misunderstanding of the concept, especially in different contextual settings.

The term (agricultural) development represents a cluster of at least five related but separate concepts. First, development may involve agri-

cultural expansion which occurs when additional land is brought into agricultural production, utilising additional labour and capital instruments without a change in the 'state of the arts' of farm production or agri-support activities. Secondly, development may refer to increased production per hectare of cropland or per head of livestock. Thirdly, the concept of development may refer to agricultural growth, meaning here the total proportional increase of agricultural production in a particular national economy, whether resulting from expansion or improved productivity usually measured in market value terms. The fourth concept of agricultural development is a situation characterised by rising value of agricultural products per agricultural worker. Finally, development in this context may mean agricultural transformation, referring to the normally aspired long-run phenomenon which, as the national economy rises in productivity, involves workers transferring from agriculture to other types of economic activity.

For the purpose of this study, it seems that a definition which reflects most of these concepts is necessary. Consequently, development, in the context of this thesis, is defined as a process which leads to improved changes in the peasant farmer's managerial efficiency, farming sophistication and agricultural techniques and patterns that result in noticeable and sustained increases in productivity per given unit factor of production, and in scientific use of all factors of production. It seems worth noting that development here involves primarily changes in the nature and quantity of purchased farm inputs and in the techniques of their use and application, and changes in the productive capacity of the land. Development will, therefore, be used interchangeably with growth and transformation (Appendix V).

(c) Peasant Agriculture

The terms 'peasant' and 'agriculture' have been used so often in geography that they have assumed many shades of meanings. This tends to make them difficult, and sometimes nearly impossible, to use as analytical tools in theoretical explanation without prior precise definition. Despite such considerable usage, there has been no consistent definition of the concept (Nesman, 1981; Saul and Woods, 1971). For the purpose of this analysis, a combination of Padilla's (1960) definition and that of Saul and Woods (1971) will be used to define peasant agriculture as an organisational concept which refers to the tilling of land and the tending of livestock 'characterized by the use of a simple technology to raise crops and livestock, for both cash and subsistence purposes, by those whose ultimate security and subsistence lies in their having certain undivided rights in land and labour of kin and family members on the land, within a wider economic system which includes the participation of non-peasants'[3]. In the context of this research, peasant agriculture is also referred to as peasant farming or African agriculture (Appendix V). It should also be noted that there are two other sectors - large-scale and small-scale commercial farming - in the categorisation of Zimbabwe's agriculture[4]. Neither of these last two sectors is examined directly in the present study.

## 2. CONCEPTUAL FRAMEWORK

### 2.01 Agricultural Co-operation

(a) Background

Informal co-operation in agriculture is very ancient. Examples can be cited from the Indian panchayat, the Russian mir, the West European manorial village, and the Zimbabwean nhimbe or majangano (Appendix IIIb). However, formal agricultural co-operation is a relatively recent phenomenon, which has its origin in Germany, where Friederich Welheim

Raiffeisen (1818-1888) and Wilheim Haas (1839-1913) built up within a few years a fairly complete system of rural co-operation (Bedi, 1971; Helm, 1968). In the United Kingdom, formal agricultural co-operation is marked by the formation of the Agricultural and Horticultural Society in 1867 (Newbury, 1980; Sargent, 1982); such formal organisation among Zimbabwean peasants began only in 1956.

(b) Classical Views of Co-operative Character and Principles

Formal agricultural co-operatives occur in a wide range of forms and types throughout the world. Galeski (1977) presents a continuum from the least socialised organisations, such as where mutual assistance occurs between individuals, to communes, where the farming is an integral part of the local collectivised community. When agricultural co-operation is interpreted as broadly as this, then clearly its incidence and scale of operation is considerable (Sargent, 1982), and hence embraces many co-operative activities which aim to help the farmer in his 'professional' capacity as a producer. Figure 1.1 gives some of these activities classified according to their functional basis (Agrawal et al., 1971; Appendix Ib).

Despite such diversity of character and variation of the scale of activity, it seems safe to state that formal agricultural co-operatives are institutional agencies for achieving social cohesion and the economic betterment of people (Bager, 1980).

Like the co-operative movement in general, the agricultural co-operatives to be dealt with in this study are broadly based on the so-called Rochdale Principles (Appendix Ia) which, as already noted, are basic to the definition of a co-operative organisation[5]. Amerina (1980) holds that only two of these principles (democratic control and patronage refund)'are axiomatic in distinguishing a co-operative from a nonco-operative enterprise.' But Larson (1969) maintains that three principles

(democratic control, patronage refund and limited return on capital investment) should be used as criteria for determining whether or not an organisation is a co-operative. Given this yardstick, a number of organisations that are not ordinarily recognised as co-operatives do, in fact, qualify and are, therefore, in essence co-operatives[6].

Functional Classification of Agricultural Co-operatives

| Co-operation for Production | Co-operation for Consumption |
|---|---|
| 1. Agricultural Input Supply | 1a. Agricultural Co-operative Thrift and Credit Supply. |
| 2. Agricultural Co-operative Marketing | 2a. Agricultural Consumer Goods Supply. |
| 3. Co-operative Labour Supply | 3a. Agricultural Insurance |
| 4. Co-operative Crop Production | 4a. Co-operative Transport Facilities |
| 5. Co-operative Stock Production | 5a. Co-operative Educational and Health Services |
| 6. Co-operative Use of Farm Machinery | 6a. Co-operative Water Supply |
| 7. Co-operative Processing of Agricultural Produce | 7a. Multi-purpose Co-operative Service |

Source: Compiled from Personal Research Information, 1981/82.

Figure 1.1

(c) Presentation of Selected Theoretical Approaches

This thesis is concerned mainly with co-operative organisations that co-exist with capitalist forms of business in the same markets and within the same socio-economic system, which for nearly a century has been closely modelled on systems in Western Europe and North America. Consequently, the concepts and theoretical approaches to be used in analysing and understanding agricultural co-operation in Zimbabwe are largely based on the economic theory of co-operation developed in Western Europe and Anglo-America. Although the central threads of the co-operative

theory are thus rooted in the Western tradition, the three main analytical approaches to be discussed under this subsection owe their theoretical basis to the influence of various ideological and philosophical standpoints (Davidovic, 1977; Puri, 1979; Smith, 1969). According to Helm (1968), there are three major explanatory models applied in the study of co-operation, namely: the co-operative enterprise model, the co-operative commonwealth model and the socialist co-operative model.

(i) The Co-operative Enterprise Theory

Perhaps the first comprehensive attempt at developing a co-operative theory which tries to show that co-operative business behaviour is different from other types of business and that, therefore, the conventional theory of the firm analysis is inappropriate was made by Ivan Emelianoff (1942), who maintains that

> "An economic analysis of the co-operative problem can be made adequately if the problem is examined from the purely economic angle" (2),

thereby ignoring all the non-economic aspects of co-operation. This view is supported by Clark (1952) and Robotka (1947) among others. While the Co-operative Enterprise theory[7], as propounded by Davidovic (1977) and Helm, (1968) recognises the economic importance of co-operatives, it advocates a comprehensive approach which upholds the diversity of co-operative activities and recognises the different forms of co-operation. Roy (1964) notes that the co-operative society is a voluntary association of independent economic units that is, farms, businesses and households, which pool their resources (capital, labour and skills) together to form a business enterprise which purports to advance the members' economic and social interests, and to protect and maintain their socio-economic independence, and thus to achieve economies of scale in a competitive economic system.

This theory has its historical basis in the liberalism and practical approach of men like Huber (1800-1869), Plunkett (1854-1932) and Schultz-Delitzsch (1808-1883). It has a strong following in the classical co-operative countries of Western Europe and Anglo-America.

(ii) The Co-operative Commonwealth Theory

The Co-operative Commonwealth Theory goes beyond the improvement of the members' economic position within the existing capitalistic economic system. It advocates, as a long-term objective, the elimination of the competitive capitalistic system and its replacement by an economic system based on two important criteria: mutual co-operation and self-help (Abarbanel, 1974; Bedi, 1971; Hyden, 1976).

While the capitalist enterprises exist to secure profit for the capital of the investor, the Co-operative Commonwealth theory holds that

> "Co-operative enterprises exist, on the contrary, to exclude profit - as fully as possible - and to offer service instead to their members, to people, to consumers, farmers, workers, etc." (Davidovic, 1977)(3).

However, for the co-operative to be effective, Helmberger and Hoos (1961), supported by Sargent (1982), note that the co-operative enterprise mobilises factors of production, produces goods and services, and relies mainly on the proceeds of the sales of its products to meet the costs incurred in the process of offering services to the beneficiaries.

This theory has its origin in the emerging socialism of the nineteenth century. It was championed by such men as Fourier (1772-1837), Lassalle (1825-1864) and Owen (1771-1858). Today it has found a revival in developing countries, for example, in Mahatma Gandhi's philosophy of co-operation and Nyerere's philosophy of Ujamaa, and in Latin American advocates of 'la republica co-operativa'.

(iii) The Socialist Co-operative Theory

The Socialist Co-operative Theory is the most recent of the three theories under consideration. It is based on the Marxist-Leninist theory which postulates that co-operatives are an economic and social organisation of the proletariat serving not only the interests of the members but also working towards social progress of both the peasantry and the proletariat (Grosfeld, 1978; Rajaguru, 1980; Sargent, 1982). In terms of Marxism - Leninism, this means a development towards an eventually communistic society, which, according to Capek (1966)

> "promotes, safeguards and realises the interests and aspirations of the working people" (4).

This theory seems to derive from the principles of modern welfare economics, whose techniques of analysis tend to be regarded as imprecise (Sargent, 1982) and its contributions to formal co-operation as elusive (Ritson, 1977). It finds application in the socialist countries of Eastern Europe, and is also applied in the study and explanation of the agricultural collectivisation[8] of the Communist countries.

Of the three models, the Co-operative Enterprise theory seems to be the most appropriate analytical tool for the study of Zimbabwean peasant agricultural co-operation. Consequently, this thesis will depend largely on the Co-operative Enterprise theory in its analysis of the three different forms of agricultural co-operation that constitute part of the core of this study.

## 2.02 Research Hypotheses

It has already been mentioned that many pre-independence Zimbabwean government officials and their development experts have offered copious reasons for the underdevelopment of Zimbabwean peasant agriculture and for the ineffectiveness of the major development strategies designed on the basis of their diagnosis. Some of those explanations may have been situationally true some fifty years ago. But it is the contention of this

thesis that most of these observations may be misconceptions whose application in scientific explanation is untenable. To show the validity of this assertion, the following two general hypotheses have been formulated and used as guidelines in the collection, analysis, interpretation and presentation of relevant data:

(a) That there is sufficient will and potential/capacity among Zimbabwean peasant farmers to adopt modern agricultural innovations. But the strategy of peasant agricultural development must be seen to be economically viable and socio-politically acceptable to the local authorities and peasants themselves.

(b) That agricultural co-operation is a vital strategy in the diffusion of modern farming innovations necessary for the transformation of peasant agriculture. Agricultural extension service, credit assistance schemes and marketing facilities are indeed important. But it seems highly improbable that any one of these factors, if applied on the basis of the 'single input' theory, is likely to succeed in stimulating peasant agricultural development.

The choice of these two hypotheses has largely been governed by three main considerations. First, a considerable body of literature written about Zimbabwean peasant agriculture has generally tended to castigate peasant farming practices and techniques as being mainly responsible for the underdevelopment of peasant agriculture (Hughes, 1974; Murton, 1973; Yudelman, 1964; et al.)[9]. These hypotheses have, therefore, been selected because they are considered relevant to the discovery of the factors that

account for the underdevelopment of Zimbabwean peasant agriculture and the contribution of the major farming development strategies - both past and present - towards its transformation. Secondly, the two hypotheses have been designed in accordance with their capacity to enable this research to gather such information as would throw light on Zimbabwean peasant farming behaviour and agricultural practices, and on the importance of agricultural co-operation as a 'package deal' peasant farming development strategy. Thirdly, the two hypotheses have been formulated on the basis of the availability and ready accessibility of accurate and useful data in the field of study chosen. However, these hypotheses, for reasons which will become clear later, are not designed for rigorous scientific testing intended to result in dogmatic conclusions about any aspect of the central assumptions made. As already noted, they are designed to serve simply as guidelines to the enquiry into Zimbabwean peasant agriculture and agricultural co-operation in the Zimbabwean context.

## Chapter 1: FOOTNOTES AND REFERENCES

1.1 Developing Economies is a term used here loosely to refer to the Third World countries.

1.2 For a full account of the Theory of Cultural Dualism, read Boeke, J. H. - 1953: Economics and Economic Policy of Dual Societies as Exemplified by Indonesia (New York).

1.3 Non-peasants include the so-called primitive agriculturists and commercial farmers.

1.4 Large-scale commercial farming refers to what used to be all European farming, and small scale commercial farming to what used to be called African Purchase Lands farming.

1.5 This is more than simply a definitional problem, because several of these principles are operationally important and determine the behavioural characteristics of the organisation.

1.6 Most countries, including pre-independent Zimbabwe, do not legally recognise an organisation as being a co-operative until it has been registered or chartered, under appropriate enabling legislation. But lack of legal niceties does not fundamentally alter the fact that an organisation, which qualifies according to these principles, is a structurally and functionally fully-fledged co-operative.

1.7 The co-operative enterprise theory is also called 'Pace-makers' or 'co-operative yardstick school' of thought.

1.8 Agricultural collectivisation differs from agricultural co-operation in that the former refers to complete co-operative pooling of land, labour and the resulting harvest, while the latter refers to individual land holdings which are usually individually worked, but with some form of joint co-ordination and complete co-operative services for credit, supply and marketing.

1.9 Some useful and relevant insight into the 'blame -the-peasant thesis' can be found in J. P. Danckwerts, 1970 and 1974; B. N. Floyd, 1971; A. F. Hunt, 1966; R. W. M. Johnson, 1959 and 1963d; J. D. Jordan, 1966; T. W. F. Jordan, 1973; B. E. Massell and R. W. M. Johnson, 1968; R. C. Riddell, 1978; G. A. Smith, 1972; A. K. H. Weinrich, 1975; and several Ministerial Reports.

## SOURCES OF QUOTATIONS AND REFERENCES

1.1 Morgan, W. B. - 1978: Agriculture in the Third World, p. 1.

1.2 Emelian, I. - 1942: Economic Theory of Co-operation, p. 222.

1.3 Davidovic, G. - 1977: The Character of the Co-operative Enterprise in Andreou, (Ed.) Co-operative Institutions and Economic Development, p. 393.

1.4 Capek, M. - 1966: 'The Czechoslovak Co-operator; Number 2/1966', p. 3.

# CHAPTER 2

## SCOPE OF THE RESEARCH AND METHODS OF INVESTIGATION

### 1. INTRODUCTION

Chapter one has formulated the central problem that is to be investigated, has defined the aims the thesis hopes to achieve and has formulated the hypotheses which guide the direction of the inquiry. To achieve those aims, this chapter sets out to define the scope of the study, discusses the main research techniques used in the selection of the research sample and deals with the major investigative methods applied in gathering vital data necessary in providing answers to questions specified by the central problem. This chapter also tries to justify the choice of the research domains, the types and sizes of the samples selected for the study and the methodology used in the collection, processing and analysis of the data.

### 2. THE STUDY DOMAIN

Domain in this context refers to the scale of enquiry. In geographical studies, scale is a fundamental problem (Haggett, 1965; Harvey, 1968; Peil, 1982), which requires a clear definition that puts the scope of the selected study into proper spatial and temporal perspectives. It also covers the population to be studied and the sample used.

#### 2.01 Spatial Distribution

(a) The Main Focus

The spatial domain of this research entails the distribution of the major peasant agricultural development strategies in general, and of selected forms of agricultural co-operation in particular. The study will specifically focus its attention on the national distribution of the

government-initiated and sponsored supply and marketing African co-operatives (Fig. 6.2). It will also analyse the distribution of privately initiated and independently organised multi-purpose peasant farming co-operatives, with special reference to the Association of Master Farmers' Clubs and the Catholic Association Agricultural Co-operatives. The study will then examine the spatial diffusion patterns of agricultural technology through the vehicle of agricultural co-operatives.

(b) The Scale

In agricultural geography data are collected and generalisations made most frequently at four major levels, namely: the national level, the agricultural regional level, the farm level, and the field level (Morgan and Munton, 1970). Because of the limited resources[1] available at the disposal of this research, it has not been possible to gather primary data on a national level. Neither has any attempt been made to collect detailed primary information on an agricultural regional level. However, the study has been able to utilise, in aggregate form, a good deal of valuable agricultural information which was fairly abundant from secondary and tertiary sources - for instance, from Government records on agricultural production and marketing, relevant publications (text books and journals) and newspapers - on both the national and regional levels. Most of the data used in this thesis have been collected at the farm and field levels. The farms and fields studied were selected from ten districts (Table 3.5) in only three provinces, namely: Mashonaland East, Mashonaland West and Masvingo (Fig. 3.8). Figure 2.1 shows the ten districts and the three provinces covered by this research.

Several practical, methodological and theoretical considerations led to the selection of these three particular provinces. Six were particularly responsible for the choices made.

First, the student undertaking this research has more knowledge of

ZIMBABWE: THE PROVINCES AND DISTRICTS
COVERED BY THE RESEARCH

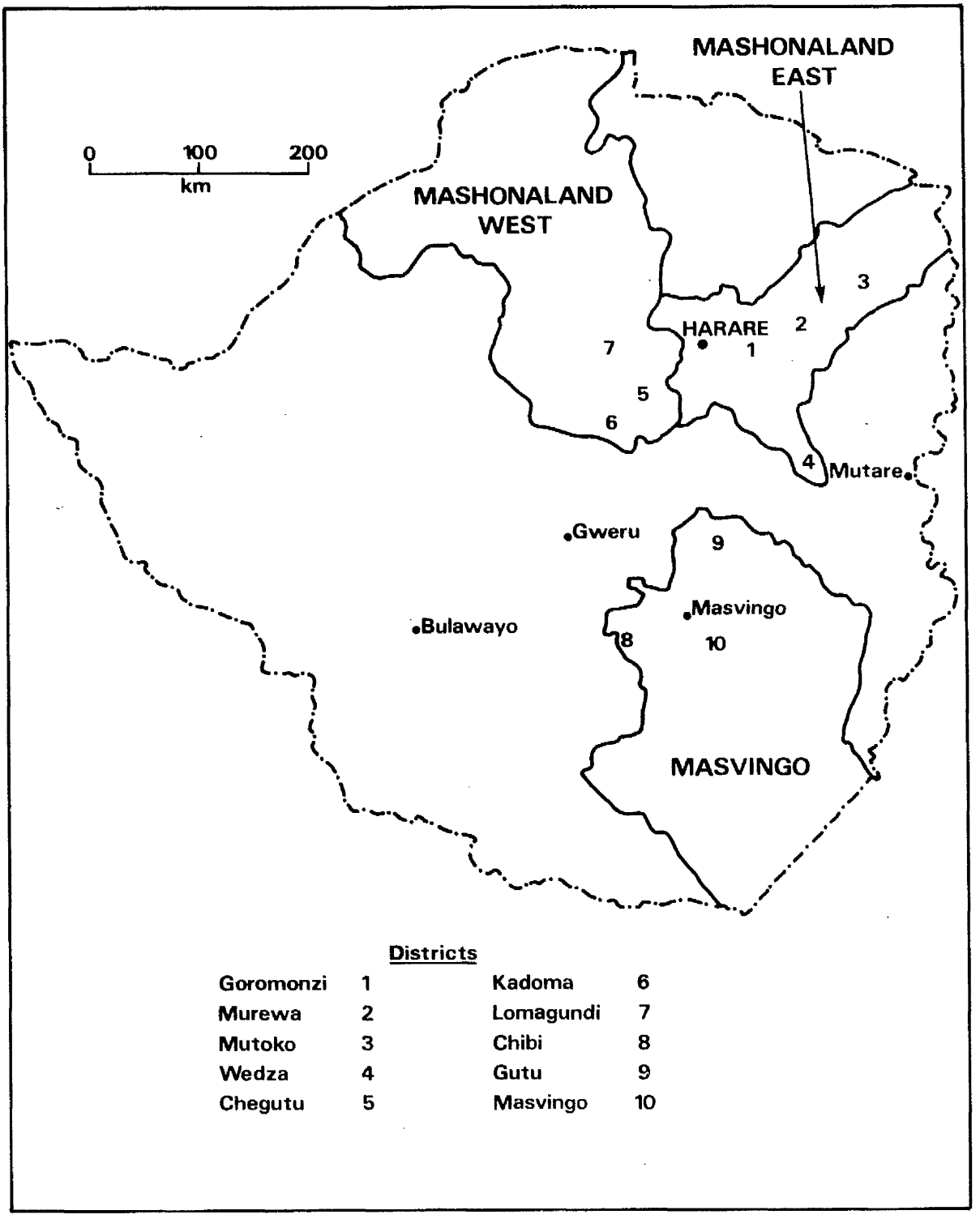



Fig. 2.1

these three provinces than of those which were left out. Secondly, most parts of the three provinces were easily accessible in terms of security and operational transport networks after the ravages of the liberation war. These two reasons were of immense practical advantage in the selection of the research sample because the student knew the set-up of the most important aspects of the peasant farming 'industry' in these provinces. Thirdly, these provinces were chosen because the student grew up in Masvingo Province and was educated and worked with some of the Catholic Association Agricultural Co-operative farmers in the provinces of Mashonaland East and Mashonaland West for some six years before the undertaking of this research. Fourthly, because of these facts, the student is very conversant in both Karanga and Zezuru dialects which are spoken in the three provinces, and with the local Shona customs. These facts were considered methodological assets in ensuring maximum co-operation from both the local authorities and the peasant farmers, and hence guaranteeing a high response rate from the selected interviewees. Fifthly, the three provinces were selected for this research because these areas include four agro-ecological regions[2] (ranging from region IIa to region V), a fact which offers an opportunity for comparative investigation of the differences in agricultural potential that might be caused by physical factors. This diversity of physical characteristics found in the three provinces offers a fairly representative picture of the whole country, enabling one to make tentative generalisations about Zimbabwe's agricultural potential on the basis of the observations from these provinces. Finally, pilot surveys carried out in February, 1980 discovered the existence, inter alia, of many organisations[3] which purport to promote the development of peasant agriculture in these provinces, and that there were certain pockets in these areas where some peasants had not bothered to join any agricultural co-operative or group. Besides, the Association of Master Farmers' Clubs and the Catholic Association Agricultural

Co-operative Scheme, both of which were to be central to this thesis, were respectively started in Masvingo Province and in the provinces of Mashonaland East and Mashonaland West. These factors together provided ideal theoretical research material necessary for testing the validity of the hypotheses presented above.

## 2.02 Temporal Distribution of the Study

Although the colonial administrations made some attempts to discourage African shifting cultivation and to introduce some form of peasant sedentary farming as early as 1898, no meaningful official efforts were made to improve peasant agricultural productivity until 1926 when Alvord was appointed 'Agriculturist for the Instruction of Natives' for the purpose of studying African (farming) methods and advising on possible changes (Palmer, 1977)[4]. This research will, therefore, begin by studying the development or underdevelopment of peasant agriculture and selected official development strategies for the period between 1926 and 1981 - a time span of 55 years. Secondly, the research will investigate the origin and growth of the government-initiated and sponsored African co-operatives and their effects on peasant agricultural changes, if any, between 1956 and 1981, a period of 25 years. Finally, this study will examine the emergence and assess the achievements of the non-government peasant agricultural co-operatives, with specific reference to the Association of Master Farmers' Clubs which was formed in 1967, and to the Catholic Association Agricultural Co-operative Scheme which was started in 1968.

It is clear, therefore, that the temporal domain of this study will cover, for the analytical purpose of this thesis, three overlapping historical dimensions: first, the period between 1926 and 1981. secondly, the period between 1956 and 1981; and finally, the time from the late 1960s (i.e. around 1967/68) to 1981.

Table 2.1 Distribution of Co-operative Farmers in the Provinces Studied.

| PROVINCE | PROVINCIAL FARMING UNITS | | NO. OF FARMERS IN AGRICULTURAL CO-OPERATIVES | | | |
|---|---|---|---|---|---|---|
| | No. of Farmers | As a % of National Total | No. in Government Co-operatives | As a % of Provincial Total | No. in Non-Government Co-operatives | As a % of Provincial Total |
| Mashonaland East | 108,700 | 14.5% | 3,679 | 3.4% | 21,547 | 19.8% |
| Mashonaland West | 39,400 | 5.3% | 3,590 | 9.1% | 9,651 | 24.5% |
| Masvingo | 169,238 | 22.6% | 8,573 | 5.1% | 5,937 | 3.5% |
| TOTALS | 317,338 | 42.3% | 15,842 | 5.0% | 37,135 | 11.7% |

Source: Calculations from Research Data, 1980/81

## 2.03 The Target Population and the Sampling Frame

This research set out to 'understand the geography of Zimbabwe's peasant agriculture, and the problems and prospects of its development'. The primary information for this understanding must be gained mainly through the study of the agricultural activities, patterns and systems of the Zimbabwean peasant farming community which is officially estimated at between 750,000 and 780,000 farmers[5]. In view of the limited resources available to this research, it was, of course, impossible to contact individually all the 750,000 - 780,000 farmers. It was, therefore, necessary to narrow the focus of the research to a numerically manageable spatial domain. Consequently, three provinces (Fig. 2.1), with a total peasant population of 317,338 farming units (Table 2.1) were, for reasons already stated, selected for this research. Table 2.1 shows the distribution of co-operative farmers in the three provinces. It is worth noting from this table that peasant farmers in government-sponsored co-operatives (15,842) form only 5 per cent of the total peasant farming community in the three provinces, while those in non-government co-operatives (37,135) constitute nearly 12 per cent of the same base.

Since the study was set to investigate the effectiveness of agricultural co-operation as an agricultural development strategy, the focus had to be further narrowed to encompass co-operative organisations operating in the three provinces. This has enabled the study to reduce the target population down to 52,977 co-operative farmers which, as shown on Table 2.1, works out to be only 16.7 per cent of what would otherwise be a very large original target of 317,338 farmers.

The main peasant agricultural co-operative organisations chosen for this study are the government-initiated and sponsored African Co-operative Societies formed in 1956, the Association of Master Farmers' Clubs formed in 1967, and the Catholic Association Agricultural Co-operatives started in 1968. As the government-sponsored African Co-operatives were, at the

time of this research, in a state of turmoil due to the radical changes being introduced by the Independent Government, most officials of the Co-operative Directorate were not very co-operative in providing accurate lists of the membership of 'their' Co-operative Societies. This made it impossible for the study to 'formulate' a definite sampling frame for this category. However, the research managed to obtain valuable primary information on the government-sponsored co-operatives from peasant co-operative farmers in three villages in Mashonaland East, Masvingo and Midlands Provinces (Table 2.3).

The membership records of both the Association of Master Farmers' Clubs and the Catholic Association Agricultural Co-operatives have consistently been up-dated since the formation of the two organisations more than a decade ago. The leadership of the two organisations was extremely co-operative in providing accurate sampling frames for these two categories of agricultural co-operation. For the Association of Master Farmers' Clubs, only three districts - Chibi, Gutu and Masvingo (Fig. 2.1), with a total membership of 3,931 master farmers, that is, 66.2 per cent of the entire provincial membership of the whole organisation - were selected as the sampling frame. Seven districts - Goromonzi, Murewa, Mutoko and Wedza in Mashonaland East, and Chegutu, Kadoma and Lomagundi in Mashonaland West (Fig. 2.1) - with 89 per cent of the total membership of the Catholic Association Agricultural Co-operatives - were chosen as the sampling frame for this form of agricultural co-operation.

## 2.04 Sampling Techniques and the Research Sample

The process of narrowing the focus of the enquiry at different stages of the research can broadly be regarded as sampling. Sampling is both necessary and inevitable in research because, as Peil (1982) puts it

> "It is never possible to read all the literature applicable to the proposed research, include all the variables which might be relevant, to interview everyone who might provide useful information or

> to use all the data gathered in the final report. Thus, sampling takes place in the selection of a research topic, the research site, the people to be studied, the concepts and variables which are used, the data which are collected and methods employed, and the relationships on which the analysis is focused" (1).

Economic, personnel, time and infrastructural contraints often dictate what is included and what is omitted, but the principles of sampling provide guidance for making the most of the resources available (Cole and King, 1970; Hammond and McClullagh, 1978; Moser and Kalton, 1971; Peil, 1982). The significance of applying these principles is to allow each individual member of the target population an equal (non-zero) chance of being included in the final sample (Daugherty, 1975; Maxwell, 1972). This makes the sample fairly representative of the parent population, thus permitting the making of reasonably valid and reliable generalisations about the findings of the research with a measurable amount of confidence (Dixon and Leach, 1978; Harvey, 1973; Husain, 1979). There are several sampling techniques that may be used in selecting such an ideally representative sample. For purposes of this research, the following five major sampling techniques (and, in most cases, a combination of two or more) have been applied: cluster sampling, stratified sampling, simple random sampling, systematic sampling and purposive sampling.

As the members of both the Association of Master Farmers' Clubs in the three districts selected, and of the Catholic Association Agricultural Co-operatives in the seven districts chosen were widely spread, it was considered prohibitively expensive to sample throughout the districts. Consequently, the farmers' clubs and/or groups were clustered into two to four areas or villages per district. The pilot surveys which had been undertaken in February, 1980 had revealed that there were some women who acted as effective heads of their households for purposes of decision-making in farming[6]. To ensure their proportionate inclusion in the sample, stratified sampling was used to stratify the farmers into the female/male

variable.

When 27 co-operatives/clubs and/or villages (Table 2.2) were thus selected by using the clustering method and the farmers in some of those groups stratified by sex, a simple random sampling technique was used to select 160 co-operative farmers - 17 female farmers and 143 male farmers. In most of those groups where co-operative membership or attendance at the interview meetings was less than 30 farmers a number of 'raffle' tickets marked in numerical sequence of up to the number of farmers required from that group/village were mixed together with blank tickets and shaken up in a box. The farmers were then requested to pick up a ticket each. Those who drew the tickets with numbers were then included in the sample. For six groups, most of which had a membership of between forty and seventy farmers, particularly for those in Masvingo Province, it was decided, in consultation with the club leadership, that only those farmers included in the sample should be invited to attend the interview meetings. The sampling of the farmers had, therefore, to be done before the convening of the meetings. Each farmer in the register was accordingly assigned a number and, by using a table of random numbers, the required number from each group was selected and included in the sample.

There were two occasions when the simple random sampling method was rejected by the farmers, because most of them were so enthusiastic to be included in the sample. In those cases, the systematic sampling technique was, therefore, used to select every 'Nth' farmer in the secretary's register. Table 2.2 shows the size and the distribution of the sample which was thus selected and interviewed for this research.

During this research it was considered necessary to collect some raw data from members of the government-sponsored co-operatives. But, as already noted, there was no reliable sampling frame. The purposive or judgement sampling which depends on the selection by 'experts' of a typical or representative sample (Harvey,1973; Kish, 1965; Yates, 1960)

Table 2.2 Distribution of the Research Sample by Province and District (N = 212)

| PROVINCE | DISTRICT | CO-OPERATIVES/CLUBS | | CO-OPERATIVE FARMERS | | NONCO-OPERATIVE FARMERS | TOTAL SAMPLE |
|---|---|---|---|---|---|---|---|
| | | Total | Sample | Total | Sample | | |
| MASHONALAND EAST | Goromonzi | 228 | 4 | 6,524 | 29 | 12 | 41 |
| | Murewa | 329 | 4 | 9,412 | 30 | 12 | 42 |
| | Mutoko | 31 | 2 | 987 | 7 | 3 | 10 |
| | Wedza | 109 | 2 | 3,218 | 10 | 4 | 14 |
| MASHONALAND WEST | Chegutu | 171 | 2 | 4,902 | 10 | 4 | 14 |
| | Kadoma | 163 | 2 | 4,657 | 9 | 3 | 12 |
| | Lomagundi | 6 | 1 | 182 | 4 | 2 | 6 |
| MASVINGO | Chibi | 67* | 4 | 1,135 | 26 | 4 | 30 |
| | Gutu | 45 | 3 | 1,995 | 16 | 4 | 20 |
| | Masvingo | 30 | 3 | 801 | 19 | 4 | 23 |
| TOTALS | 10 | 1,179 | 27 | 33,813 | 160 | 52 | 212 |

Source: Research Data, 1980/81.

* Two of these clubs were, at the time of this research not officially registered, but fully operative.

was used in choosing co-operative farmers from the government-sponsored societies. Twenty-four farmers were thus selected and 'unstructured' interviews carried out[7]. Table 2.3 gives the spatial distribution of these farmers. Admittedly, the purposive sampling technique suffers from the weakness of bias and tends to give an unrepresentative sample of the target population(Hansen et al., 1953; Husain, 1979; Moseman, 1970). But as Harvey (1973) notes:

> "This is not to say that judgement sampling is worthless, for, ..... it has an important role to play" (2).

However, their data are corroborated by ample evidence supplied by 32 peasant farmers who retain dual membership of both government and non-government agricultural co-operatives[8], and by 47 former members of the government-sponsored co-operative societies; 21 of whom, however, are now members of the Association of Master Farmers' Clubs, and the rest are now members of the Catholic Association Agricultural Co-operatives.

The purposive sampling procedure was also used in selecting thirty agricultural extension assistants and fourteen co-operative extension officers and assistants who were operating in the three provinces chosen for this study. Table 2.4 demonstrates the distribution, by province, of these government officials during the time of the research; it also shows the samples chosen from these officials. Their information has also supported the evidence obtained from the 24 co-operative farmers in Table 2.3.

In addition to the 184 co-operative farmers (Tables 2.2 and 2.3) formally interviewed, it was also decided to include nonco-operative farmers in the main sample. Consequently, 52 peasant farmers were selected and included in the main sample. The purposive sampling method was used to choose these farmers from the same areas and, in most cases, from the same villages as the 160 co-operative farmers in the main sample (Table 2.2). Twenty-one of these farmers are women. The distribution, by both province and district, is shown in Table 2.2 (column 7).

Table 2.3 Distribution of Government-Sponsored Co-operators Interviewed (N = 24)

| PROVINCE | DISTRICT | AREA | CO-OPERATIVE FARMERS | | SAMPLE AS % OF PROVINCIAL TOTAL |
|---|---|---|---|---|---|
| | | | Provincial Total | Sample | |
| Mashonaland East | Goromonzi | Rusike | 3,679 | 5 | 0.14% |
| Masvingo | Chibi | Gororo | 8,573 | 10 | 0.12% |
| Midlands | Shurugwi | Banga | 7,451 | 9 | 0.12% |
| TOTALS | 3 | 3 | 19,702 | 24 | 0.12% |

Source: Calculations from Research Data, 1980/81.

Table 2.4 Provincial Distribution of Agricultural Extension Assistants (N = 30) and Co-operative Extension Officers and Assistants (N = 14)

| PROVINCE | AGRICULTURAL EXTENSION ASSISTANTS | | | CO-OPERATIVE EXTENSION OFFICERS AND ASSISTANTS | | |
|---|---|---|---|---|---|---|
| | Provincial Total | Sample Selected | Sample as % of Provincial Total | Provincial Total | Sample Selected | Sample as % of Provincial Total |
| Mashonaland East | 135 | 10 | 7.4% | 18 | 5 | 27.8% |
| Mashonaland West | 117 | 7 | 6.0% | 13 | 3 | 23.1% |
| Masvingo | 214 | 13 | 6.1% | 30 | 6 | 20.0% |
| TOTALS | 466 | 30 | 6.4% | 61 | 14 | 23.0% |

Source: Calculations from Research Data, 1980/81.

The nonco-operators were included in this research for the purpose of comparing the level of agricultural development of the two groups of farmers. A smaller sample of twenty co-operators[10] and twenty nonco-operators has been selected for the purpose of this detailed comparative study of the peasant adoption of agricultural innovations. Table 2.5 shows the distribution of this smaller sample, chosen from the main sample (Table 2.2). The two groups in the main sample were first stratified according to the agro-ecological region, and then the twenty farmers from each group were selected by simple random sampling method. Stratification was necessary to ensure the inclusion of an equal number of farmers from each of the five agro-ecological regions. Ten indices or variables (Table 9.1) were chosen for the assessment of the degree of agricultural development, or underdevelopment, of the two groups. Because of the unequal sizes of the samples of the two groups (Table 2.2), and because of the depth of the analysis and the detailed information sought from this analysis, it has been neither practicable nor possible to apply such a detailed enquiry to a larger sample than the one selected. The results of this investigation have enabled the study to 'test' the effectiveness of agricultural co-operation as a farming development strategy, and to assess the peasant farmers' capacity to adopt modern agricultural innovations.

Table 2.5 Agro-Ecological In-Depth Study Sample Representation (N = 40)

| AGRO-ECOLOGICAL REGION | CO-OPERATORS | NONCO-OPERATORS |
|---|---|---|
| IIa | 4 | 4 |
| IIb | 4 | 4 |
| III | 4 | 4 |
| IV | 4 | 4 |
| V | 4 | 4 |
| TOTALS | 20 | 20 |

Source: Main Sample (Table 2.2)

## LOCATION OF CASE STUDIES IN CHINAMHORA COMMUNAL LAND

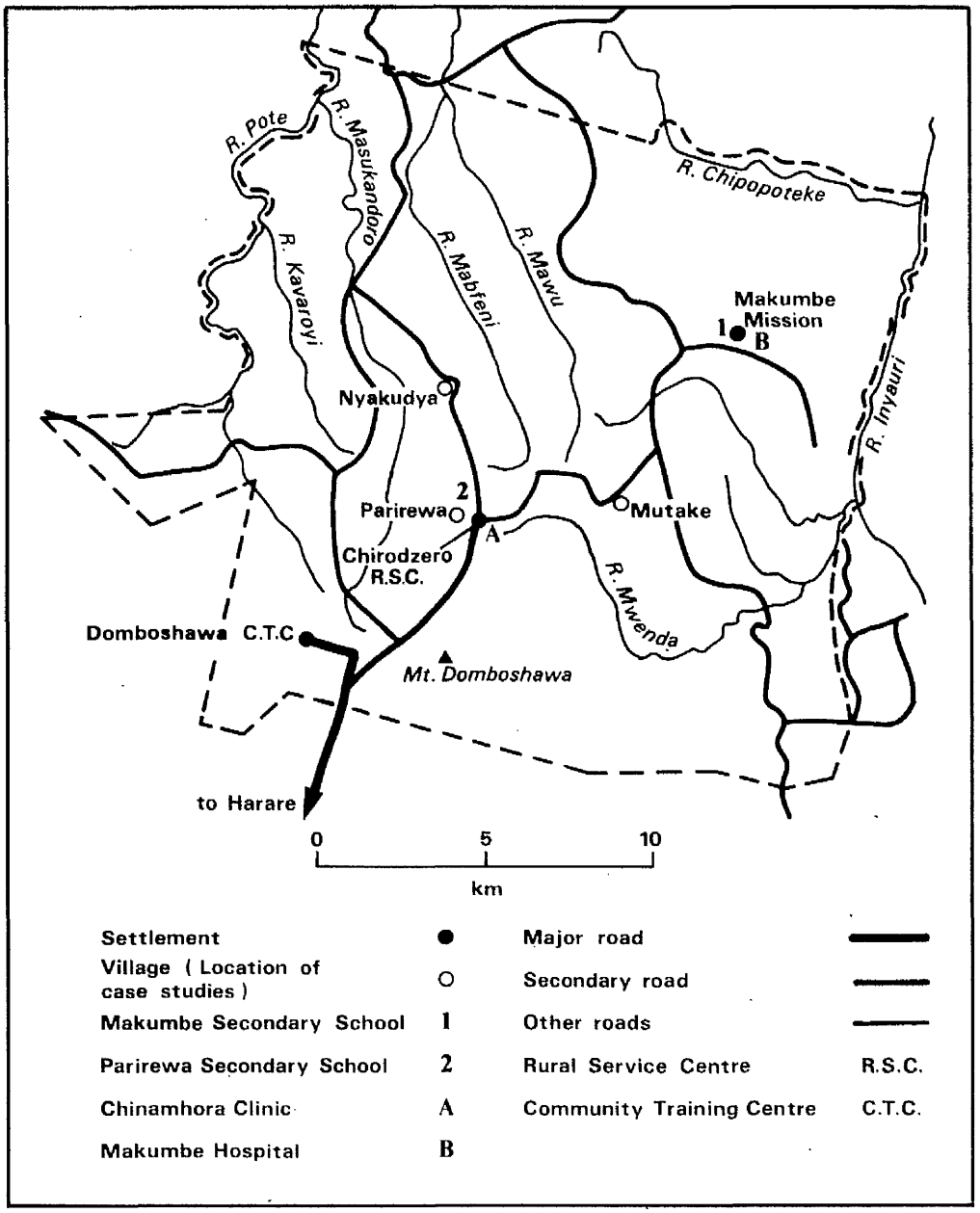



Fig. 2.2

The research also selected six peasant farmers (three co-operators and three nonco-operators) as case studies for an in-depth study of the farmers' day-to-day farming activities, especially during the peak farming period - that is, from November to May inclusive. These six farmers were chosen on the basis of accessibility and co-operation, from three villages about 3 kilometres apart, in Chinamhora Communal Land, Goromonzi district (Fig. 2.2). Table 2.6 presents the three villages in which the case studies were carried out. The Table also shows the sizes of the selected farmers' fields.

Table 2.6 Case Studies in Chinamora Communal Land (N = 6)

| VILLAGE | CO-OPERATORS (N = 3) | | NONCO-OPERATORS (N = 3) | |
|---|---|---|---|---|
| | No. of Farmers | Size of Field | No. of Farmers | Size of Field |
| Mutake | 1 | 1.4 ha | 1 | 1.6 ha |
| Nyakudya | 1 | 2.0 " | 1 | 2.4 " |
| Parirewa | 1 | 1.6 " | 1 | 1.2 " |
| TOTALS | 3 | 5.0 ha | 3 | 5.2 ha |

Source: Research Data, 1980/81

Figure 2.2 shows that the three villages are within easy reach from Harare - Parirewa is 36 kilometres from the city centre while Nyakudya and Mutake are each 39 kilometres away. The three villages are adequately provided with fairly adequate basic infrastructures. The farmers have access to the services of a rapidly expanding Rural Service Centre at Chirodzero, a clinic at Chinamhora, and a hospital at Makumbe Mission (about 6 kilometres from Mutake), two big secondary schools at Makumbe and Parirewa, and a fully tarred road from Harare to Chirodzero Rural Service Centre (Fig. 2.2). Transport facilities to Harare are regular and fairly adequate. Constant contact was maintained with the six farmers, and daily records of farming activities were kept by two local agricultural extension assistants, who

co-operated very well with this study.

Finally, it must be noted that all the 212 peasant farmers in the main formal research sample were drawn from four of the six agro-ecological regions (Fig. 3.7 and Table 3.6). No attempt has been made to ensure an equal distribution of the sample in the different regions. The resultant distribution, presented in Table 2.7, is therefore largely a function of various forms of probability sampling.

Table 2.7 Distribution of the Research Sample by Agro-Ecological Region

| PROVINCES | DISTRICTS | TOTAL SAMPLE | AGRO-ECOLOGICAL REGIONS | | | | |
|---|---|---|---|---|---|---|---|
| | | | IIa | IIb | III | IV | V |
| MASHONALAND EAST | Goromonzi | 41 | 41 | - | - | - | - |
| | Murewa | 42 | 14 | 18 | 10 | - | - |
| | Mutoko | 10 | - | - | - | 10 | - |
| | Wedza | 14 | - | 6 | 8 | - | - |
| MASHONALAND WEST | Chegutu | 14 | - | 6 | 8 | - | - |
| | Kadoma | 12 | - | - | 12 | - | - |
| | Lomagundi | 6 | 6 | - | - | - | - |
| MASVINGO | Chibi | 30 | - | - | - | 18 | 12 |
| | Gutu | 20 | - | - | - | 16 | 4 |
| | Masvingo | 23 | - | - | 8 | 12 | 3 |
| TOTALS | 10 | 212 | 61 | 30 | 46 | 56 | 19 |

Source: Research Data, 1980/81.

## 3. DATA COLLECTION AND ANALYSIS

### 3.01 Fieldwork Investigative Techniques

The collection of primary data in Human Geography, as opposed to Physical Geography, involves contact with people, and hence entails the application of social science investigative techniques. The conventional social science approach to investigation uses the standard survey techniques

which normally pay careful attention to sampling and the use of structured questionnaires, and adopt particular interviewing methods and coding procedures (Harvey, 1963; Moser and Kalton, 1971; Peil, 1982). Rather than using a single social scientific method, this research has adopted and applied a multi-dimensional approach considered capable of obtaining mutually reinforcing results from data collection procedures which, by traditional norms, might otherwise be condemned as speculative. The study uses both the conventional and the non-conventional methods of data collection because the main objective was to discover how the Zimbabwean peasant farmer abstracts and synthesises the various internal and external factors in his political, socio-cultural and economic milieu in order to make decisions which are then responsible for the resultant peasant land-use patterns and farming systems.

The major research techniques used to gather the data which form the basis of this thesis were therefore the 'questionnaire'; the anthropological methods of unstructured discussions and interviews; and participant observation.

(a) The Questionnaires

Three different types of questionnaires were designed and used in collecting both primary and background data on the geographical and historical setting of Zimbabwe's peasant agriculture, on its present organisation, on its actual and potential productive capacity, and on the main problems which retard its transformation. The three questionnaires were also used to gather primary data on the nature and contribution of various forms of agricultural co-operation.

The first questionnaire (Appendix IIa) was administered to 212 peasant farmers (Table 2.2), 75 per cent of whom were co-operators and 25 per cent nonco-operators. The February pilot survey revealed that a considerable proportion of the target population could not read nor write, and that

some of those who could read and write might, for various reasons, be reluctant to fill in the questionnaire, or were prone to ignore them as an unnecessary nuisance, or might only have half-heartedly applied themselves in filling out the questionnaires accurately. Postal services in most rural areas are extremely unreliable, and in some parts of the country are almost non-existent. The use of mail questionnaires for gathering data was, therefore, out of the question. Instead, a special research assistant and the author interviewed each of the 212 farmers in the sample, and recorded the answers in the 'questionnaire'. Technically, therefore, Questionnaire I should be regarded as an 'interview recording schedule'. The personal interview approach reduced the need for literacy among the sample, overcame possible peasant reluctance and resistance to answer certain questions, and yielded much more satisfactory results than a mail questionnaire from an unknown source could have produced, especially among the Zimbabwean peasantry where interaction is so highly personalised. This approach also enabled supplementary questions to be asked to obtain additional information, to explain answers and to check that the respondents were not making up their responses.

It must, however, be stated that nearly 98 per cent of the farmers selected for the sample of this research were extremely co-operative. Two reasons were possibly responsible for peasant co-operation with, and keenness to involve themselves in, the research. First, my personal knowledge of most of the members of the Association of Master Farmers' Clubs and of the Catholic Association Agricultural Co-operatives and my previous connections[11] with these organisations led to the development of a good rapport between me and most of the respondents. Secondly, some of the farmers co-operated so well because they anticipated some assistance (financial and/or land) if they showed interest in farming and reported their farming requirements and problems to the interviewers.

The second questionnaire (Appendix IIb) was administered to the sample of Government agricultural extension assistants (Table 2.4) selected from a staff of 466 assistants, operating in the three provinces covered by this research (Fig. 2.1), Unlike the farmers, the selected agricultural extension assistants were individually given the questionnaires and allowed a period of two months to fill them in. Some of the assistants asked for further clarifications of certain questions on the questionnaire. All but two (one promoted to the Head Office at the Ministry and the other transferred to Manicaland Province) were able to fill in and return the questionnaires within four weeks. The two 'drop-outs' had to be replaced, and the replacements were able to respond within the two months' period. The second questionnaire covered questions that dealt with largely similar aspects as those dealt with by the first questionnaire. However, the data collected from the agricultural assistants were important for comparative purposes with those provided by the peasant farmers. This helps to check the accuracy of certain statistics and claims given by the farmers because most of them had no written records of the data of their past inputs and outputs.

The third and the last questionnaire (Appendix IIc) was administered to twelve organisations (Appendix IId)[12], both para-statal and private, which are engaged in promoting peasant agriculture in the three provinces covered by this research. Like Questionnaire II, Questionnaire III was individually given to these organisations. They were allowed two months to fill in the questionnaires and have them ready for collection. The questions set in this questionnaire were intended to investigate non-government views on peasant farmers. The information acquired from the nine organisations which responded provided an interesting comparative insight into peasant agriculture.

(b) Unstructured Interviews and Discussions

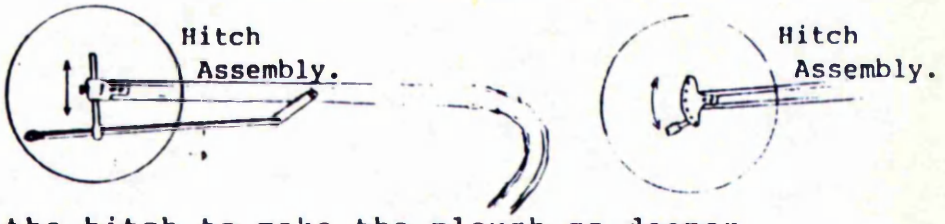
Structured questionnaires, as discussed above, tend to reduce the amount of personal contact with the interviewees and of flexibility in research, and hence constrain data collection to pre-determined paths (Peil, 1982; Warren, 1975). Consequently, some writers (Whyte, 1977) have suggested and recommended the use of the 'triad' strategy of observing, listening and recording, and asking questions. This permits an objective identification of the respondents' views, a point which is stressed by Richards (1978) when he warns that unless there is ample opportunity for respondents to specify the dimensionalities and make the interconnections inherent in their knowledge of their 'universe' clear, their responses, taken at face value, and as provoked by the contingencies of a tightly structured questionnaire interview, may unwittingly mislead rather than inform.

Unstructured interviews and discussions, sometimes in groups, were therefore considered a very effective method of collecting data, not only from the peasant farmers and those who work with them, but also from Government Ministers who did not have time for the questionnaire type of investigation. This technique was also useful in gathering data from certain officials (both current and retired), in both parastatal and private organisations, who dislike formally instituted questionnaire type of interview. The unstructured interview technique was used in collecting information from the 24 co-operators selected from the government-sponsored co-operatives in Goromonzi, Chibi and Shurugwi (Table 2.3) and from the fourteen co-operative extension officers and assistants (Table 2.4) interviewed in the three provinces covered by this study. Five retired agricultural extension assistants and an unspecified number of peasant farmers, both co-operators and nonco-operators, in Goromonzi and Murewa, in Chegutu, in Chibi, and in Shurugwi, were also interviewed through this method. The information gathered was recorded as field notes in research note books.

*Plate 1(a). C.A. Farmers at an awareness and motivation course at Silveira House, 1981.*

*Plate 1(b). Agricultural extension demonstration work, 1981.*

SETTING THE OX-PLOUGH



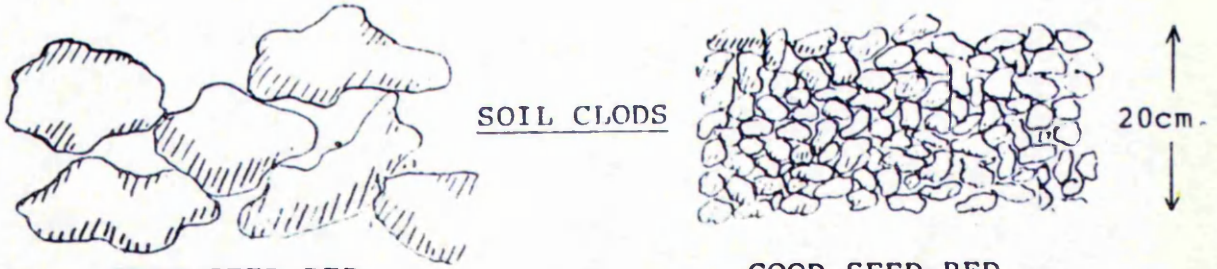

**Raise** the hitch to make the plough go deeper.
**Lower** the hitch assembly to get the plough shallower.

Once you have ploughed, use a badza to break up the big clods by hitting them where you are going to place the fertilizer and seed.

If you have a drag harrow, use it to break the clods on the land.

For the best results you want the soil loose, with no big clods, to a depth of 20 cm (8 inches).

SEEDS




POOR SEED-BED.

GOOD SEED-BED.

*Plate 8. Farmers at a field day (pre-marketing field course).*

(c) Participant Observation

> "Observation can fairly be called the classic method of scientific enquiry. The accumulated knowledge of biologists, physicists, astronomers and other natural scientists is built upon centuries of systematic observation, much of it of phenomena in their natural surroundings rather than in the laboratory." (Moser and Kalton, 1971) (3)

Observation, in this sense, means the accurate watching and noting of phenomena as they occur in nature with regard to their causal relationships or any mutual relations that may exist among a given set of phenomena. But in considering observation as a technique of research enquiry in social science, the term is often used in a much wider sense where it involves the study of a behavioural process by becoming part of that process. By identifying with members of the process or the community under investigation, the researcher generates confidence among the target population. This enhances co-operation and support from the farmers and ensures maximum response rate from the 'interviewees'. Participant observation is also useful in collecting data about the behavioural characteristics of a community because it prevents the target population from making up answers in order to impress the researcher which sometimes occurs in a formal interview situation. The observer has the opportunity of personal physical involvement in the activities of the community to be studied.

For ten months, the special research assistant and the author lived among peasant farmers in the ten districts, shown in Table 2.2, and in Shurugwi. We were personally involved in ploughing, planting, weeding, cultivating, applying chemicals, harvesting, shelling, threshing and preparing crops for marketing. We also participated in feeding, dosing and treating cattle, pigs and poultry. All this participation was carried out in a number of selected villages or co-operatives - at least one village or group per district. Table 2.8 shows the farmers' agricultural awareness courses (Plate 1a), field days (Plate 2), meetings (plate 3), and ploughing competitions (Plate 4a), which we attended during the ten

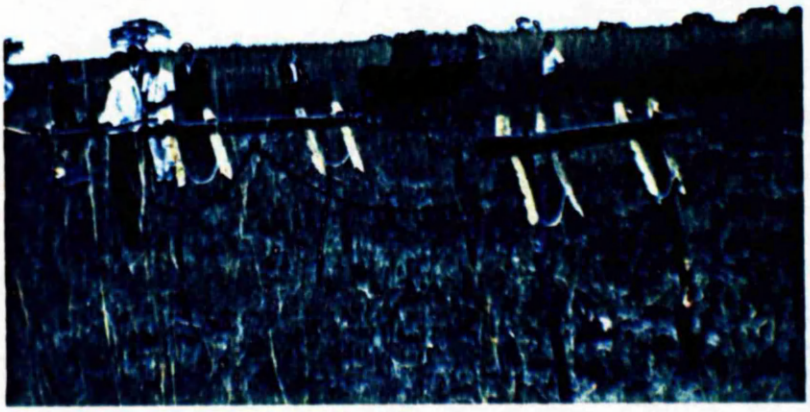
Table 2.8 Participant Observation at the Farmers' Courses, Field-days and Meetings.

| ORGANISATION | COURSES | FIELD-DAYS | MEETINGS |
|---|---|---|---|
| Association of Master Farmers' Clubs | 4 | 5 | 7 |
| Catholic Association Agricultural Co-operatives | 7 | 12 | 10 |
| Government-sponsored Co-operatives | - | 1 | 6 |
| Total | 11 | 18 | 23 |

Source: Personal Fieldwork Data, 1980/81.

*Plate 3. Farmers at a co-operative business meeting, 1981.*

*Plate 4(a). Ploughing demonstration competitions, 1981.*



months we were in the field. These observations were coupled with many questions and discussions with the farmers about why they were carrying out certain practices. Much valuable information was gathered through these methods.

A substantial amount of primary information, especially production and marketing statistics, was obtained from the Ministries of Agriculture and of Lands, Resettlement and Rural Development. Valuable information and ideas were also obtained from the Faculty of Agriculture and the Department of Economics at the University of Zimbabwe. Very useful data were also gathered from secondary sources, such as annual reports of both public and private institutions and organisations; from periodic journals and occasional publications on relevant topics; from relevant text books on Zimbabwean agriculture in general and peasant agriculture in particular; and from such tertiary sources as newspaper reports.

The data from these many sources allowed the two hypotheses formulated in chapter one to be investigated in some detail. The results of this investigation form the basis of this thesis.

### 3.02 Data Analysis

The processing, editing and coding of most of the data were carried out soon after their collection. But the process of tabulation of the data was laborious and tedious. In quantitative geography the process of data analysis, which follows tabulation, involves statistical organisation and manipulation of the processed data. But, as noted by Moser and Kalton (1971),

> "Analysis of [any] survey material does not necessarily have to be statistical" (4).

Because of the nature of the study and some of the techniques used to gather some information, many of the data collected are not variables which can be mathematically manipulated. To impose statistical analysis on every piece of information gathered would lead to a serious distortion of the

findings of the research and impair understanding. Many of the open-ended questions have been coded into categories of frequency distribution and presented in tables of frequencies. Some of these tables will be used in this thesis. Admittedly, non-quantitative analysis sometimes tends to hinder the making of rigorous conclusions, especially on the characteristics of the aggregates.

## 4. CONCLUSIONS AND THESIS LAYOUT

### 4.01 Research Problems

Generally, the methodological and practical problems encountered during this research cannot be regarded as having seriously affected the main findings. Nevertheless, five problems may be recognised. First, it was difficult to define with certainty the scale of the spatial domain of this study considered satisfactorily representative of Zimbabwean peasant farming as a whole. It may not be easy to convince everyone that the three provinces chosen for this research are completely representative of the other five, in terms of those major factors responsible for main characteristics of the peasant agriculture. Secondly, some farmers' inability to verbalise their day-to-day experiences was a hindrance in understanding the peasants' perception of the underlying principles governing the decision-making processes responsible for the farmers' actions and behaviour. This was, however, solved by participant observation during which time the researcher was able to observe some issues verbalised in local discourse. Thirdly, refusal by some farmers, though a small fraction, to give accurate information to certain questions, either for economic or for personal reasons, was an obstacle in achieving a complete response rate. Fourthly, lack of written records of farm inputs and outputs of farm operations, of marketing data and incomes, was perhaps one of the greatest drawbacks in obtaining data on various aspects of peasant

agriculture. Consequently, it has not been possible to measure, with certainty, such variables as labour requirements for individual crops, chemical inputs for individual crops, comparative profitability of different crops or farming enterprises, etc. Finally, the problem of inadequate resources in terms of time, money and transport facilities forbade the choice of larger samples than those ultimately selected. This limited the national research base to only 42 per cent of the total farming community and the sample to a mere 0.03 per cent of the national farming peasantry.

Despite all these problems, it seems fair to claim that the data collected are fairly representative of the Zimbabwean peasant agricultural situation. The conclusions to be reached on the basis of these data are, therefore, considered to be - at least for the purposes of the present thesis - a fairly valid indication of the past, present and future trends of Zimbabwean peasant agriculture.

### 4.02 The Layout of the Thesis

In order to understand the geography of peasant farming in Zimbabwe and the prospects of its transformation, and the effectiveness of a selected set of development strategies, the thesis is divided into four main parts.

Part I is the introduction to the thesis. It gives the background to the theoretical considerations and the investigative methods used in this study. It contains chapters one and two. Part II puts, in chapters three, four and five, Zimbabwean peasant farming in perspective. It deals with all the physical and human factors that are responsible for the present state of Zimbabwean peasant agriculture. Part III deals in chapters six, seven and eight, with three different forms of agricultural co-operation and evaluates their impact on peasant agriculture as development strategies.

Part IV examines the diffusion of modern agricultural innovations and the role of agricultural co-operation in facilitating this diffusion, and the national potential for these co-operative models.

## Chapter 2 - FOOTNOTES AND REFERENCES

2.1 The resources referred to here are time, personnel, money, transport and communications facilities.

2.2 An agro-ecological region is defined in Chapter 3, Section 2.06, subsection (a).

2.3 Some of these organisations are: Africa Co-operative Action Trust, Agricultural Finance Corporation, The Agritex Development Area Groups, The Catholic Association Agricultural Scheme, The Catholic Commission on Social Services and Development, Christian Care, Christian Rural Development Foundation, The National Association of Master Farmers' Clubs, The Tribal Trust Land Development Corporation, The Windmill Masvingo Clubs, The Whitsun Foundation and The Zimbabwe National Farmers' Union.

2.4 The creation of the first Native Reserves (Footnote 5.3) in terms of the Southern Rhodesian Order in Council of 1898, heralded the introduction of continuous cropping in peasant farming. More attempts to stabilise peasant agriculture were made in 1902, 1908 and in 1914/15.

2.5 Those estimates are given both by the Ministry of Agriculture, and the Ministry of Lands, Resettlement and Rural Development.

2.6 Such women were either widowed, particularly during the liberation war, or their husbands are away working full-time in the urban wage sector.

2.7 These 24 farmers were not included among the 160 farmers in the main sample in Table 2.2 because they were not formally interviewed through the use of the questionnaire.

2.8 Twenty-three of these farmers (15 in Mashonaland East and 8 in Mashonaland West) belong to the Catholic Association Agricultural Co-operatives, and nine of them belong to the Association of Master Farmers' Clubs in Masvingo.

2.9 Both the 32 and 47 farmers belong to the main sample in Table 2.2.

2.10 All the twenty co-operators were from non-government sponsored co-operatives.

2.11 I was heavily involved in the political conscientisation of most of the then Victoria Association of Master Farmers' Clubs between 1969 and 1972; and I was employed by Silveira House between 1973 and 1975, a fact which gave me the chance of working with all the Catholic Association farmers then.

2.12 Although the questionnaires were given to twelve organisations, only nine were officially willing to fill and return the questionnaire. However, some individuals in the reluctant organisations managed to fill and return them.

SOURCES OF QUOTATIONS AND REFERENCES

2.1 Peil, M. et al. 1982: Social Science Research Methods: An African Handbook, p. 26.

2.2 Harvey, D. 1973: Explanation in Geography, p. 359.

2.3 Moser, C. A. et al. 1971: Survey Methods in Social Investigation, p. 244.

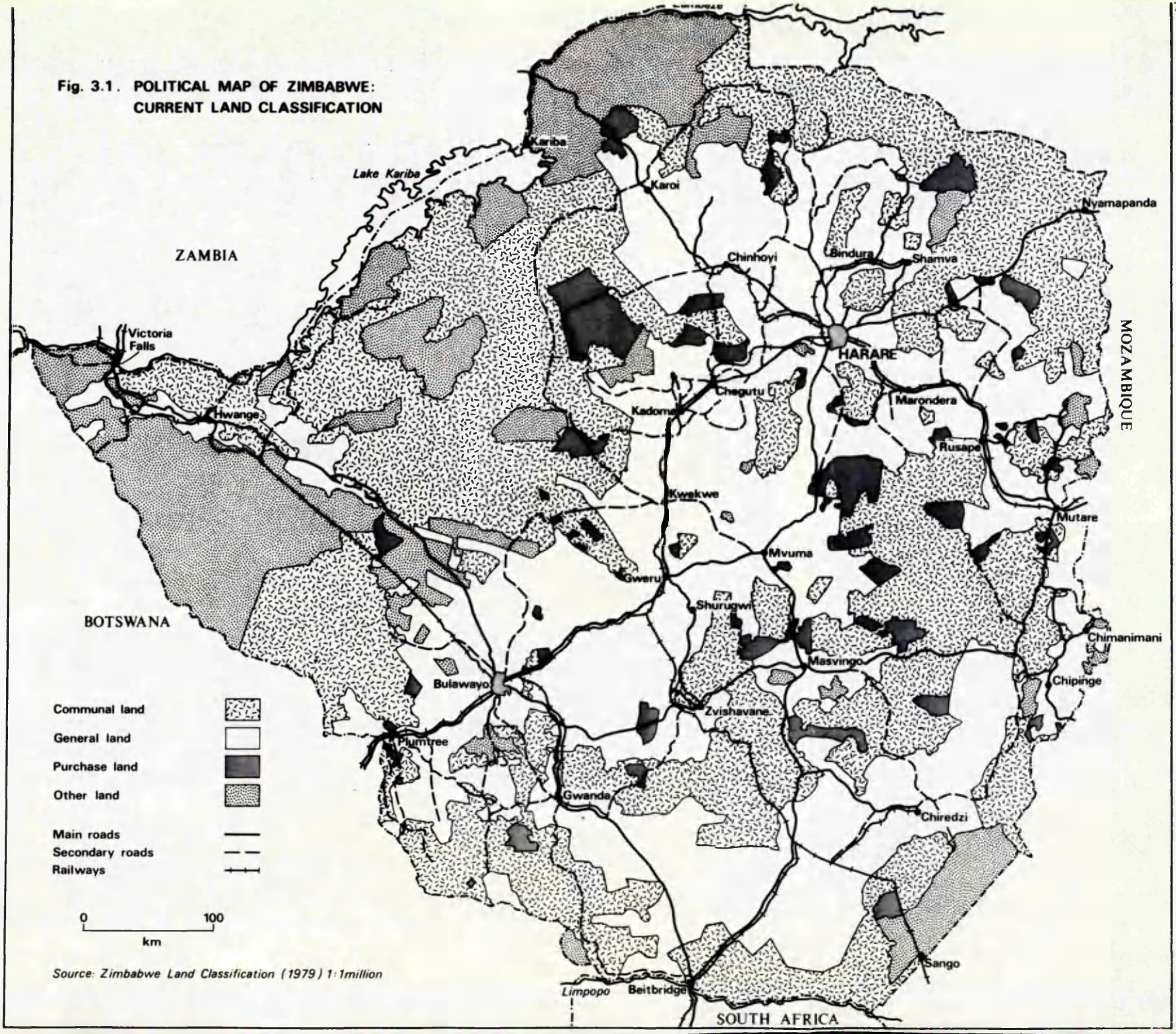
2.4 Ibid., p. 439.

PART II

## ZIMBABWEAN PEASANT AGRICULTURE IN PERSPECTIVE

Part II contains three chapters - namely: three, four and five - which together put Zimbabwean peasant agriculture in perspective. Chapter three deals with the physical, political and economic context of Zimbabwean agriculture. It examines the institutional, infrastructural and demographic bases and their relevance to farming in Zimbabwe. Chapter four describes and explains the present state of peasant farming. It does that by giving a detailed account of the dominant land-use and cropping patterns, and by revealing the productivity of peasant agriculture. Chapter five critically examines the main problems, as perceived by various sections of the society. It assesses their impact on the underdevelopment of peasant farming. It also looks at some government attempts at improving peasant agricultural production.

**Fig. 3.1. POLITICAL MAP OF ZIMBABWE: CURRENT LAND CLASSIFICATION**




*Source: Zimbabwe Land Classification (1979) 1:1million*

# CHAPTER 3.

## THE CONTEXT OF PEASANT AGRICULTURE IN ZIMBABWE

### 1. INTRODUCTION

#### 1.01 Purpose and Scope:

Peasant agriculture cannot be understood in a vacuum because:

> "Agriculture is conditioned by a wide range of physical, demographic, cultural, economic and political factors often inter-related in complex ways" (W. A. Hance, 1977) (1).

It is the purpose of this chapter, therefore, to analyse these conditioners and factors that are responsible for the nature and patterns of Zimbabwean peasant agricultural practice.

#### 1.02 Location and Size of Zimbabwe

Zimbabwe is a landlocked country of 390,760 square kilometres, or 39 million hectares. It lies wholly within the tropics between 15 degrees and 22 degrees south latitude, and between 25 degrees and 33 degrees east longitude in south-central Africa. The country is bordered by Botswana in the west, Zambia in the north, Mozambique in the north-east and east, and by South Africa in the south (Figure 3.1).

### 2. PHYSICAL ENVIRONMENT

#### 2.01 Relief and Drainage

Figure 3.2 shows that Zimbabwe is divided into three major natural regions, whose altitude varies between 300 metres at its lowest point in the south-east corner, where the Limpopo River passes into

Mozambique, to 2,600 metres in the Eastern Highlands. Nearly 25 per cent of Zimbabwe is about 1,220 metres. This area is known as the Highveld. It forms the main watershed between the Zambezi, Limpopo and Sabi rivers. It runs approximately from the south-west corner to the north-east and eastern border through the middle of the country for about 644 kilometres, and is 80 kilometres wide. Spurs run north and north-west of Harare terminating at the Zambezi escarpment at Karoi and Centinary. Within the Highveld lies the Eastern Border range of mountains, most of which is about 1,500 metres, stretching from Inyanga in the north-east to Chipinge in the south-east.

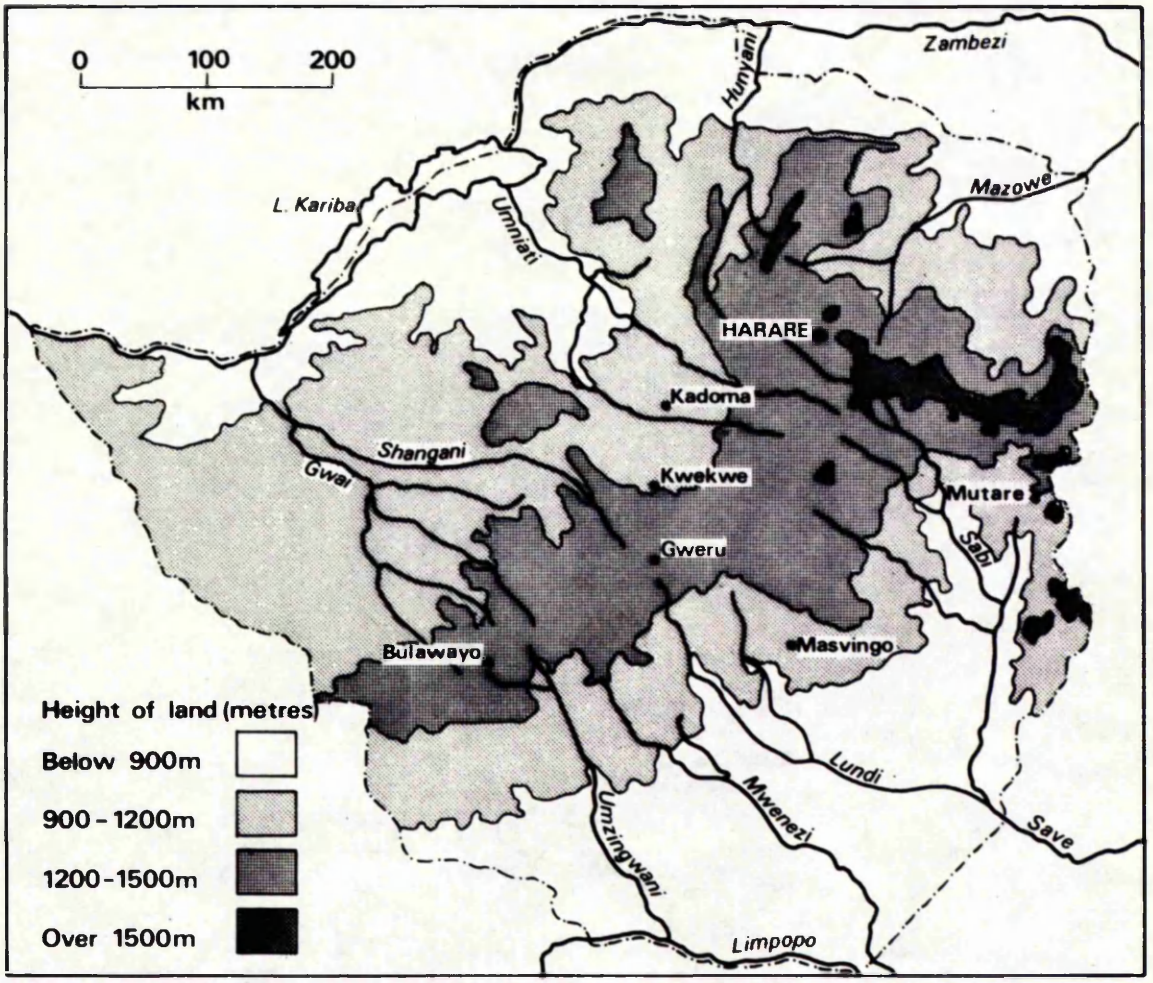
The second altitude level is the Middleveld which lies between 900 metres and 1,220 metres on both sides of the Highveld. It covers about 40 per cent of the country. The Middleveld is more dissected and undulating than the subdued Highveld, though in the west it flattens out and becomes featureless.

Beyond the Middleveld lies the Lowveld, whose altitude is below 900 metres around the Sabi-Limpopo basin and Zambezi valley. It constitutes the remaining 35 per cent of the country. In the Sabi-Limpopo valley the country is extremely flat, while in the Zambezi basin it is much more broken and rugged, with precipitous slopes along the escarpment.

The altitude of Zimbabwe exerts a considerable influence on the climate, affecting both the amount and spatial distribution of rainfall and temperature. These factors, together with soil characteristics, determine the distribution of vegetation and have an influence on the agricultural utilisation of the land.

The Highveld is a cool, well-watered and fertile area which is very attractive to human settlement. Most of the Communal Lands[1], as shown on Figure 3.1, are situated in the Middleveld and parts of the Lowveld. But the Sabi-Limpopo and Zambezi basins have proved less suitable for human settlement.

**ZIMBABWE: MAJOR PHYSICAL FEATURES**




*Source: Zimbabwe 1:1million, 7th edition, 1973.*

**Fig. 3.2**

## 2.02 Soils

The nature and distribution of soils im Zimbabwe are largely determined by the geological material from which they are derived. Climate has had some influence on soil formation and, on a more localised basis, relief has played an important part in producing differences between top and bottom lands, or vlei land, which is common in much of the country. Age and natural erosion have also influenced the nature and depth of soils,a very important factor in agricultural land-use patterns and cropping possibilities.

For the purpose of understanding the soils of Zimbabwe and appreciating their importance to agriculture this thesis will utilize Ellis's findings of 1951. On the basis of Ellis's work, Thomas and Ellis (1955) divided Zimbabwe into two unequal pedological sectors lying on either side of an oblique line running from Plumtree in the south-west to Chinhoyi in the north.

The larger part to the south-east of the dividing line is predominantly made up of granite and gneiss and relatively small intrusions of other rocks, known locally as "Gold Belts". Soils in granite areas are generally sandy in nature and of varying depth. The inherent fertility of the surface layers is normally low, although physical conditions for plant growth are good with crops responding well to manure and fertilizers. The basic igneous "Gold Belt" soils, mainly complexes of metamorphosed rocks, are the most extensive and are agriculturally the most important. The basalt derived soils have a moderately high fertility and good physical properties; those of andesitic derivatives are moderately fertile but lack the favourable physical qualities of the former. The soils derived from sedimentary rocks produce good agricultural land and good physical properties.

On the north-western side of the line soils are formed mainly from younger sedimentary rocks of various systems[2], and are therefore weakly developed. There is a large area in this portion which consists of deep sands with extremely low silt/clay ratios and little or no reserves of weatherable minerals. The fertility of these sands is low and plant nutrients are quickly leached. Another large area consists of very shallow soils less than 25cm deep over weathering rock and gravel.

There are two other major soil groups, namely: those derived from the Great Dyke, which runs down the centre of the country from north-east to south-west, and basalt which occurs extensively in the north-west and south-east, around the Lowveld. The soils of the Great Dyke - namely norite, serpentine and pyroxenite - are moderately shallow clay loams. Those obtained from norite are more fertile and clayey than those derived from serpentine and pyroxenite. Basalt soils occur mostly in the drier low altitude areas and are very fertile, though, because of their high clay content, they are difficult to handle, a point used by authorities of previous Governments to justify the allocation of African Communal lands on sandy soils.

The soils of Zimbabwe can, therefore, be described as predominantly sandy with scattered relatively small, but nevertheless, significant, areas of loams and clays. A common feature is that they almost all require extremely careful management not only to minimize physical erosion and prevent mineral exhaustion but also to restore and maintain soil fertility.

## 2.03 Climate

The main climatic factors significant for the understanding of Zimbabwean agriculture are the seasons, temperature and rainfall.

(a) Seasons

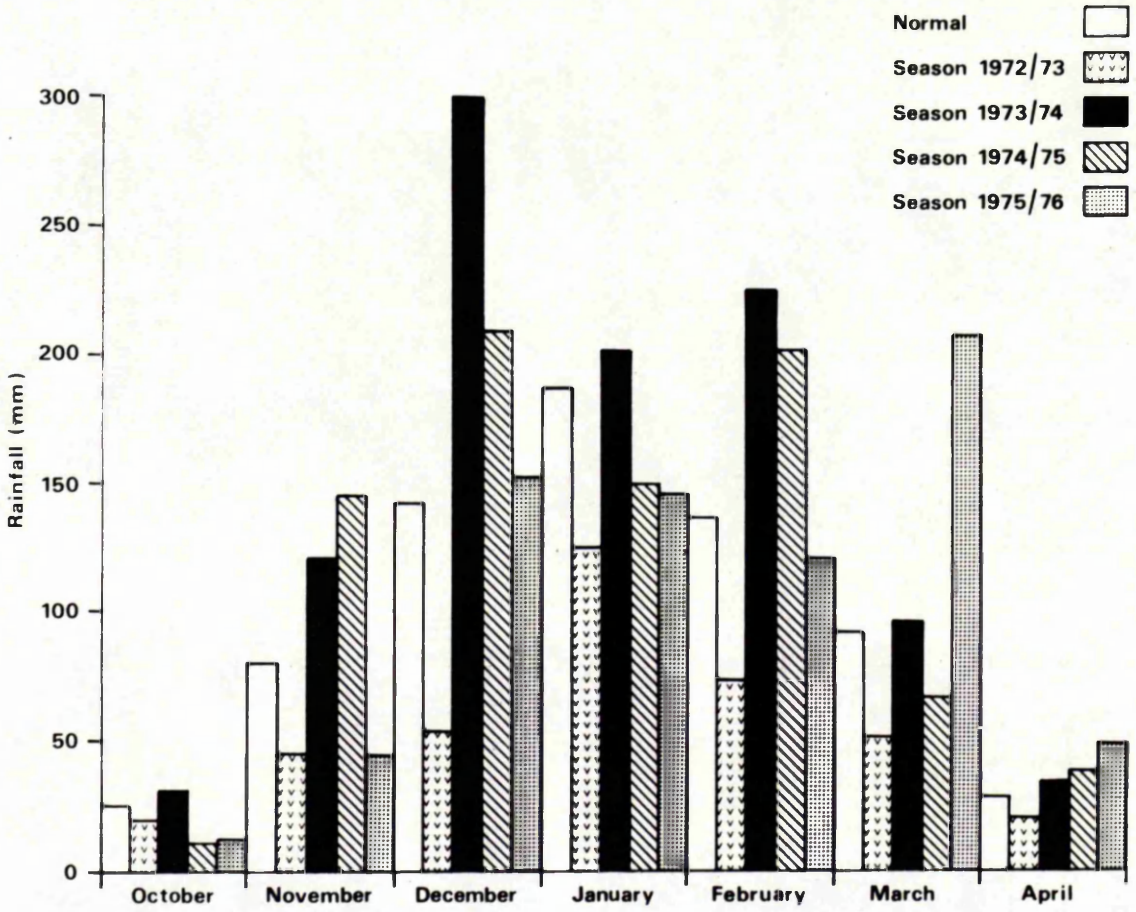
Although Zimbabwe lies wholly within the tropics, the general altitude of the plateau moderates the climate and produces subtropical conditions ideal for agricultural activities. The Phillips Report on the 'Development of the Economic Resources of Southern Rhodesia' (1962) divided the year, for agricultural purposes, into four distinct seasons of unequal duration: the cool dry season, the hot dry season, the rainy season, and the transition season.

The cool dry season begins in late May, when temperature declines, and extends to mid-August. During this period rain is unusual with the exception of occasional local drizzle, particularly on higher ground in the south-east and eastern districts. The weather is normally fine with sunny days and cold nights. Frosts are experienced on calm nights, especially in valleys and locally sheltered areas at higher altitudes. Drought conditions and extremely marked ranges between diurnal and nocturnal temperatures render crop production impossible, except under irrigation.

The hot dry season commences in mid-August and lasts until early/mid November. It is characterized by high day temperatures, low humidity and gusty winds. September and October are normally dry, but there may be local showers in the east. Towards the end of this season, humidity and cloud cover increase and occasional thunderstorms occur. Vegetation, especially the grasses, becomes greener. Arable land is being prepared for crops.

The onset of the rainy season varies with the natural region. However, it generally begins in the middle of November, and lasts through to the end of March. The early rain in November is mostly of convectional type and can be very heavy, although its distribution is often patchy. Rain tends to occur in spells often interspersed with extended hot and dry

THE RAINY SEASON - MEAN MONTHLY RAINFALL, 1972/73 to 1975/76




*Source: Annual Rainfall Reports*

Fig. 3.3

conditions. The Inter-Tropical Convergence Zone[3] moves over the country towards the middle of the rainy season, bringing with it widespread precipitation. The temperature during this period is generally lower than during the hot season. Hail occurs occasionally at the beginning of thunderstorms. Needless to say this is the period for crop production and for rapid growth of veld pasturage and browse. Figure 3.3. shows the rainy seasonal distribution of rainfall in Zimbabwe for a selected number of years (1972-1976).

The transition season, also known as the post-rainy season, lasts for two months - April and May. It is typified by somewhat moister conditions, which steadily give way to rain-free weather. Crop harvesting and marketing preparation are all done during this season.

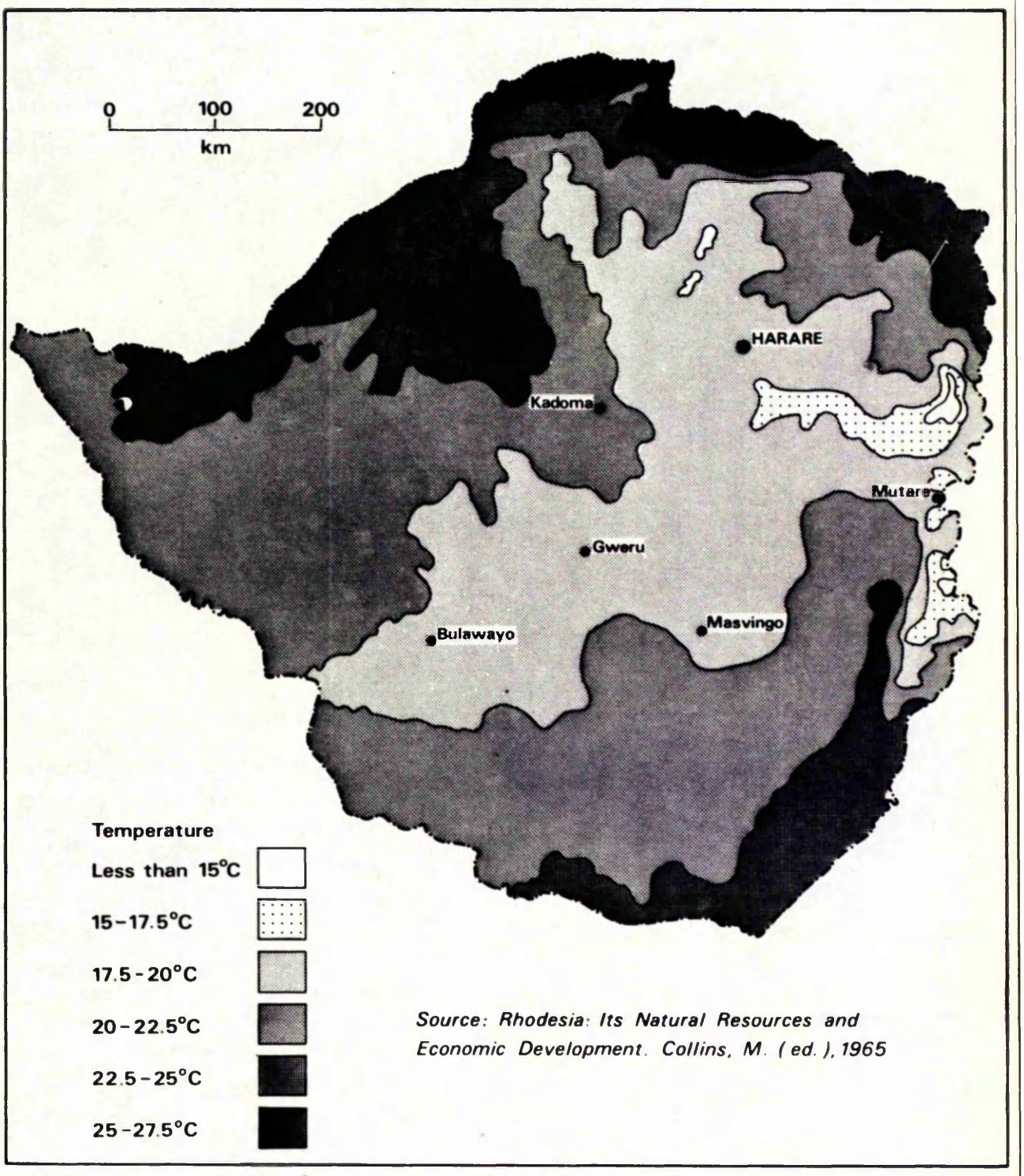
(b) Temperature

Although latitude and elevation play an important role in controlling temperature, the major single modifying factor is the cooler air entering from the south and the east. This makes the low-lying areas of the Sabi-Limpopo basin markedly cooler than equivalent elevations in the west and north (Figure 3.4). The Zambezi valley has the hottest mean annual temperature of 27°C and parts of the Eastern Border areas have the lowest mean annual temperature of 16°C. Mean annual temperatures over most of the country vary between 18°C and 21°C. During the main rainy season most areas have an average temperature above 21°C, which is normally ideal for the growth and production of tropical crops and seed breeds.

(c) Rainfall

Rainfall - in its amount, distribution and intensity - is the most important single climatic factor affecting agricultural production. Owing to the limited temporal distribution of

## ZIMBABWE: MEAN ANNUAL TEMPERATURE




*Source: Rhodesia: Its Natural Resources and Economic Development. Collins, M. (ed.), 1965*

Fig. 3.4

Table 3.1: ZIMBABWE : ANNUAL RAINFALL BY ONE SELECTED STATION PER DISTRICT

1966/67 - 1975/76

| DISTRICTS | STATIONS | 1966/67 | 1967/68 | 1968/69 | 1969/70 | 1970/71 | 1971/72 | 1972/73 | 1973/74 | 1974/75 | 1975/76 | 1976/77 | NORMAL 30 YEARS 1936-66 | AVERAGE 1966-76 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | mm | mm | mm | mm | mm | mm | mm | mm | mm | mm | mm | mm | mm |
| MANICALAND: | | | | | | | | | | | | | | |
| Buhera | Buhera | 742,4 | 339,0 | 872,2 | 664,0 | 587,5 | 1101,7 | 362,2 | 1330,6 | 1094,4 | 826,7 | 1212,7 | 785,1 | 798,1 |
| Chipinga | Chipinga | 2634,2 | 651,0 | 977,6 | 784,6 | 984,8 | 1465,8 | 579,1 | 1718,7 | 1489,2 | 1305,5 | 1385,7 | 1112,0 | 1259,1 |
| Inyanga | Inyanga BSAP | 1163,3 | 500,4 | 930,4 | 972,8 | 907,0 | 1284,5 | 705,6 | 1374,2 | 1012,5 | 1268,9 | 768,5 | 1002,1 | 1012,0 |
| Makoni | Rusape | 841,8 | 523,5 | 857,3 | 734,6 | 747,5 | 889,9 | 482,3 | 1138,9 | 939,2 | 1048,0 | 1036,8 | 844,0 | 820,3 |
| Melsetter | Melsetter | 1417,9 | 614,4 | 1150,6 | 910,3 | 830,6 | 1248,8 | 635,0 | 1417,4 | 1186,0 | 1093,5 | 1094,3 | 1095,5 | 1050,5 |
| Mutasa | Stapleford | 1827,5 | 1260,2 | 1974,6 | 1597,7 | 1349,8 | 1843,1 | 906,8 | 2613,2 | 1947,0 | 2029,4 | 1714,7 | 1818,1 | 1733,9 |
| Umtali | Umtali | 735,3 | 580,1 | 645,7 | 977,6 | 786,9 | 869,5 | 524,8 | 815,6 | 924,7 | 843,2 | 1019,0 | 757,9 | 770,1 |
| MASHONALAND CENTRAL: | | | | | | | | | | | | | | |
| Bindura | Bindura | 562,9 | 393,7 | 879,6 | 878,1 | 904,0 | 814,8 | 582,2 | 1427,8 | 872,7 | 845,5 | 907,5 | 875,3 | 816,1 |
| Centenary | Rumanje | 760,2 | 501,4 | 1156,2 | 951,2 | 766,3 | 642,7 | 392,5 | 1123,7 | 713,8 | 905,7 | 565,0 | 819,8 | 791,4 |
| Darwin | Mt. Darwin | 923,8 | 422,4 | 1027,9 | 635,5 | 767,1 | 800,9 | 675,8 | 1232,2 | 751,3 | 930,4 | 776,1 | 777,0 | 816,7 |
| Mazoe | Umvukwes Branch | 794,0 | 456,7 | 809,0 | 676,7 | 817,4 | 836,8 | 554,2 | 1240,6 | 1061,5 | 801,1 | 744,1 | 877,3 | 804,8 |
| Rushinga | Rusambo | 722,4 | 351,3 | 773,9 | 545,6 | 795,8 | 793,2 | 445,0 | Inc | Inc | 845,5 | 500,0 | 820,2 | (659,1) |
| Shamva | Shamva | 755,7 | 431,0 | 1032,5 | 934,7 | 827,5 | 710,1 | 648,2 | 1525,4 | 788,5 | 921,9 | 767,0 | 837,5 | 857,6 |
| Sipolilo | Sipolilo | 682,5 | 725,7 | 934,7 | 614,2 | 911,1 | 725,8 | 485,4 | 912,3 | 738,4 | 715,7 | 868,5 | 815,1 | 744,6 |
| MASHONALAND EAST: | | | | | | | | | | | | | | |
| Goromonzi | Goromonzi | 781,1 | 444,5 | 940,1 | 815,8 | 804,2 | 1172,3 | 640,7 | 1567,4 | 1030,0 | 1027,6 | 956,1 | 1048,3 | 922,4 |
| Marandellas | Marandellas | 880,1 | 527,8 | 782,1 | 874,0 | 812,3 | 1178,5 | 571,3 | 1231,4 | 1171,8 | 872,9 | 950,2 | 929,4 | 890,2 |
| Mrewa | Mrewa | 801,4 | 340,4 | 1099,3 | 935,0 | 737,1 | 921,5 | 520,4 | 1563,4 | 877,8 | 870,0 | 951,4 | 873,0 | 866,6 |
| Mtoko | Mtoko | 732,8 | 338,8 | 844,0 | 731,3 | 782,1 | 697,9 | 462,3 | 968,1 | 738,1 | 836,0 | 605,5 | 716,0 | 713,1 |
| Mudzi | Nyamapanda | 678,9 | 307,3 | 581,2 | 575,1 | 747,0 | 805,2 | 376,5 | 929,7 | 609,8 | 737,5 | 554,6 | 658,8 | 634,8 |
| Salisbury | Salisbury | 784,1 | 674,6 | 813,6 | 804,2 | 758,2 | 990,7 | 497,0 | 1219,5 | 1184,0 | 764,3 | 1091,9 | 847,1 | 849,0 |
| Wedza | Wedza | 683,0 | 480,8 | 802,4 | 747,3 | 746,5 | 776,2 | 464,3 | 1142,5 | 956,1 | 660,5 | 1020,6 | 858,8 | 746,0 |
| MASHONALAND WEST: | | | | | | | | | | | | | | |
| Gatooma | Gatooma | 719,3 | 426,2 | 969,0 | 497,3 | 688,6 | 1129,3 | 415,5 | 986,9 | 825,2 | 876,4 | 812,1 | 773,4 | 763,4 |
| Hartley | Hartley | 760,5 | 572,3 | 784,6 | 570,2 | 728,0 | 1032,3 | 412,9 | 1473,5 | 658,0 | 569,1 | 808,4 | 795,5 | 766,1 |
| Kariba | Kariba Airport | 554,2 | 408,4 | 1029,2 | 532,1 | 771,7 | 856,1 | 490,9 | 1236,0 | 1113,2 | 1064,2 | 878,9 | 689,3 | 805,6 |
| Lomagundi | Sinoia | 885,4 | 419,9 | 853,2 | 655,8 | 830,1 | 798,2 | 436,6 | 1070,2 | 973,6 | 896,4 | 837,0 | 868,8 | 781,9 |
| Urungwe | Karoi | 863,6 | 688,8 | 858,8 | 700,2 | 853,7 | 849,5 | 474,8 | 1078,3 | 721,6 | 1085,4 | 709,0 | 854,6 | 817,5 |
| MIDLANDS: | | | | | | | | | | | | | | |
| Belingwe | Belingwe | 523,5 | 239,3 | 521,7 | 349,8 | 389,1 | 722,4 | 294,0 | 691,3 | 901,0 | 638,9 | 642,1 | 518,9 | 527,1 |
| Charter | Enkeldoorn | 638,6 | 365,3 | 791,0 | 670,1 | 666,1 | 968,2 | 316,7 | 1116,1 | 985,5 | 846,2 | 975,5 | 735,3 | 728,4 |
| Chilimanzi | Umvuma | 561,1 | 469,6 | 858,8 | 616,0 | 608,6 | 906,8 | 348,3 | 1043,3 | 986,7 | 784,9 | 799,1 | 692,9 | 718,4 |
| Gokwe | Gokwe | 794,5 | 511,3 | 869,7 | 724,7 | 718,8 | 782,6 | 371,3 | 1135,8 | 1025,8 | 910,8 | 793,0 | 803,1 | 784,5 |
| Gwelo | Gwelo | 733,3 | 482,6 | 699,8 | 518,2 | 647,7 | 722,9 | 242,7 | 1239,0 | 915,1 | 717,7 | 654,7 | 673,5 | 691,9 |
| Que Que | Globe & Phoenix | 677,4 | 324,9 | 750,6 | 373,6 | 596,9 | 1098,1 | 330,7 | 1034,1 | 852,4 | 665,1 | 788,6 | 676,4 | 670,4 |
| Selukwe | Selukwe | 948,7 | 612,1 | 1214,9 | 954,3 | 831,6 | 962,5 | 480,9 | 1771,9 | 1632,1 | 1222,1 | 939,8 | 1041,1 | 1053,1 |
| Shabani | Shabani | 615,4 | 342,8 | 642,1 | 462,8 | 392,2 | 825,5 | 175,6 | 934,7 | 938,4 | 544,2 | 738,6 | 575,5 | 587,4 |
| MATABELELAND NORTH : | | | | | | | | | | | | | | |
| Binga | Binga | 287,8 | 464,6 | 743,2 | 585,2 | 634,2 | 794,6 | 392,9 | 966,0 | 884,6 | 1189,5 | 724,4 | | |
| Buki | Inyati | 646,2 | 485,6 | 734,6 | 522,0 | 458,0 | 737,2 | 283,9 | 801,2 | 881,9 | 612,0 | 827,6 | 622,8 | 616,3 |
| Bulawayo | Bulawayo | 562,4 | 404,1 | 626,4 | 335,8 | 494,8 | 785,8 | 298,5 | 900,8 | 842,8 | 685,0 | 750,9 | 600,2 | 593,6 |
| Lupane | Lupane | 672,6 | 471,7 | 689,4 | 402,8 | 537,2 | 821,9 | 463,2 | 893,7 | 702,5 | 755,4 | 680,9 | 619,5 | 641,0 |
| Nkai | Nkai | 613,2 | 402,8 | 664,2 | 394,7 | 584,2 | 907,2 | 395,0 | 931,8 | 909,4 | 828,0 | 638,9 | 664,0 | 663,1 |
| Nyamandhlovu | Tjolotjo | 622,6 | 472,9 | 503,7 | 399,8 | 479,8 | 718,9 | 402,9 | 902,5 | 673,5 | 654,9 | 663,8 | 508,1 | 583,2 |
| Wankie | Wankie | 324,1 | 425,7 | 558,3 | 478,3 | 608,8 | 609,3 | 283,6 | 882,5 | 778,5 | 655,7 | 376,6 | 579,9 | 560,5 |
| MATABELELAND SOUTH: | | | | | | | | | | | | | | |
| Beit Bridge | Beit Bridge | 365,0 | 178,6 | 322,5 | 350,5 | 375,4 | 444,7 | 268,7 | 355,6 | 472,4 | 499,0 | 427,7 | 330,2 | 363,2 |
| Bulalima-Mangwe | Plumtree | 683,3 | 411,7 | 571,5 | 506,2 | 345,7 | 909,7 | 304,5 | 898,7 | 830,1 | 725,3 | 601,2 | 563,4 | 618,7 |
| Gwanda | Gwanda | 665,0 | 242,1 | 635,3 | 283,5 | 446,0 | 800,9 | 264,6 | 577,8 | 604,7 | 552,7 | 673,9 | 496,1 | 507,3 |
| Insiza | Filabusi | 867,2 | 315,5 | 453,4 | 344,4 | 522,0 | 630,7 | 313,4 | 634,3 | 871,2 | 629,7 | 715,7 | 556,8 | 558,2 |
| Matobo | Kezi | 679,5 | 367,3 | 550,2 | 269,7 | 413,2 | 660,1 | 304,8 | 783,5 | 828,3 | 800,6 | 645,0 | 520,5 | 565,7 |
| Umzingwane | Essexvale | 675,9 | 383,0 | 745,5 | 391,4 | 525,0 | 804,0 | 439,2 | 896,0 | 728,6 | 599,5 | 730,2 | 650,2 | 618,8 |
| VICTORIA: | | | | | | | | | | | | | | |
| | Bikita | 1549,1 | 783,1 | 1218,7 | 1018,0 | 781,6 | 1164,3 | 740,1 | 1877,8 | 1630,4 | 1410,9 | 1380,4 | 1122,4 | 1217,4 |
| Bikita | Chibi | 708,2 | 260,9 | 616,0 | 426,0 | 510,0 | 742,7 | 239,0 | 850,2 | 873,8 | 530,4 | 786,2 | 546,4 | 575,7 |
| Chibi | Triangle | 738,1 | 346,7 | 682,2 | 525,0 | 364,5 | 858,2 | 287,1 | 731,4 | 889,0 | 626,1 | 825,4 | 601,0 | 604,9 |
| Chiredzi | Gutu | 864,9 | 400,0 | 913,1 | 662,3 | 582,7 | 1059,6 | 449,6 | 1438,2 | 1252,8 | 888,4 | 900,7 | 759,7 | 850,2 |
| Gutu | Zaka | 876,0 | 462,0 | 821,2 | 735,1 | 577,6 | 1000,6 | 373,9 | 1076,8 | 1051,5 | 849,2 | 1076,6 | 748,3 | 782,4 |
| Ndanga | Naunetsi D.C. | 522,2 | 186,4 | 556,0 | 420,6 | 569,5 | 815,4 | 323,9 | 732,2 | 888,8 | 457,2 | 905,8 | 441,0 | 547,2 |
| Nuanetsi | Ft. Victoria | 828,8 | 277,6 | 849,6 | 760,0 | 573,3 | 750,4 | 244,5 | 962,9 | 1035,5 | 719,5 | 762,5 | 613,7 | 700,2 |
| Victoria | | | | | | | | | | | | | | |
| RHODESIA : MEAN RAINFALL | | 677,4 | 404,9 | 716,0 | 538,7 | 577,3 | 806,0 | 371,1 | 1003,6 | 819,9 | 736,7 | 748,4 | 675,3 | 665,2 |

SOURCE : ANNUAL RAINFALL REPORTS 1966/67-1975/76
DEPT. OF METEOROLOGICAL SERVICES
(MINISTRY OF TRANSPORT AND POWER)

NOTE: For easy reference, the names in this Table have been left in their pre-independent state; for the new names see Appendix XVII.

Zimbabwe's rainfall the natural growing season is confined to the period between November and March when there is adequate soil moisture, (Figure 3.3).

Mean annual rainfall varies from 400 mm in the Sabi-Limpopo Basin to 2,000 mm in the montane area of the Eastern Highlands, in the hills of the Shurugwi and Masvingo districts, and east of Harare in the vicinity of Enterprise. Table 3.1 gives a summary of annual rainfall by one selected station per district. From this table it can be seen that physiographic features exert a major influence on precipitation. In general, rainfall in Zimbabwe tends to decrease from north to south and from east to west (Figure 3.5). Mean annual precipitation for the whole country is about 700 mm though regional and annual variations are considerable. Tables 3.2 and 3.3 summarize these variations. Such variations make farming in Zimbabwe an uncertain and risky occupation for everyone.

Table 3.2 Spatial Distribution of Mean Annual Rainfall (in mm)

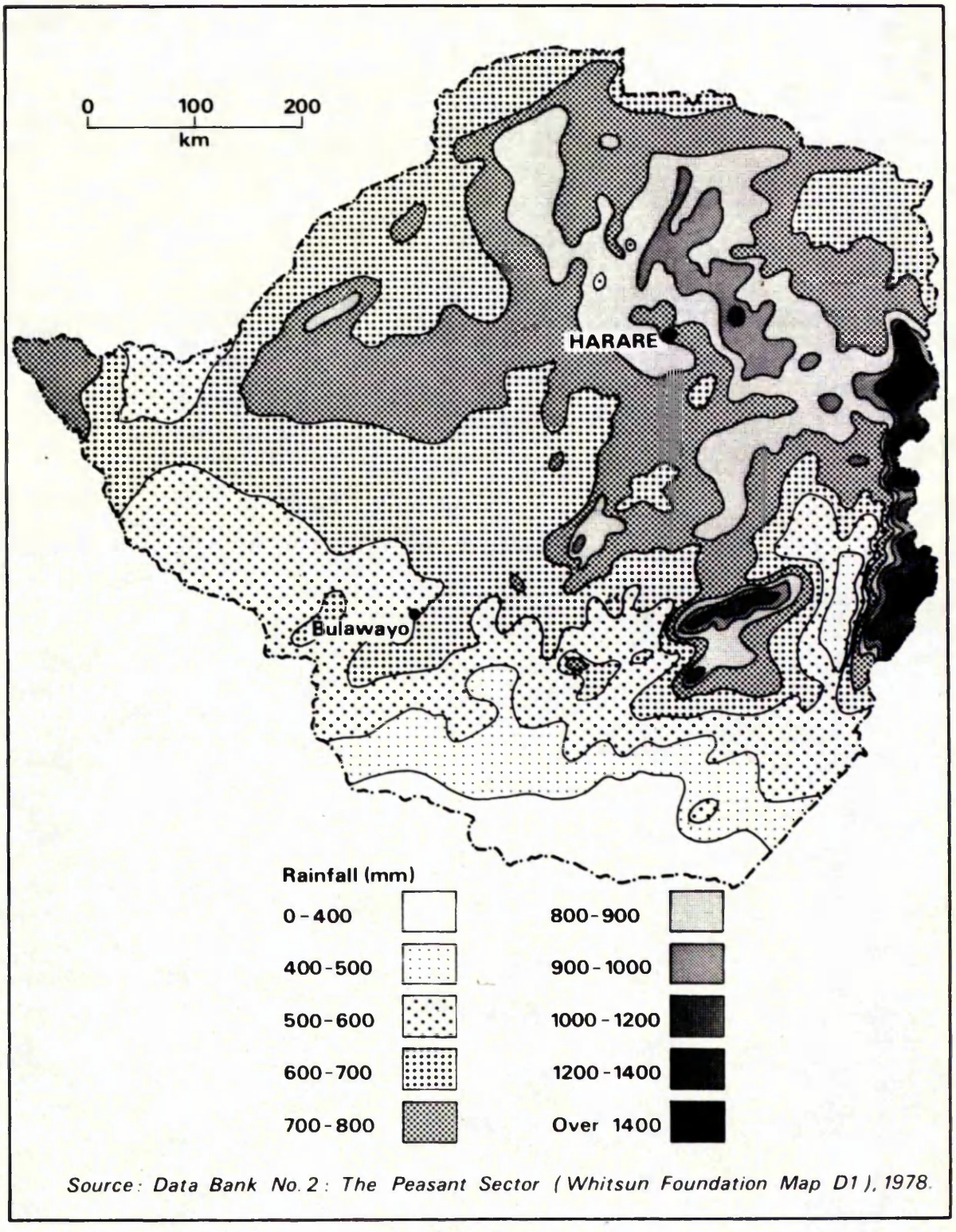
| Mean Annual Rainfall | 0-400 | 400-500 | 500-600 | 600-700 | 700-800 | 800-900 | 900-1,000 | 1,000+ |
|---|---|---|---|---|---|---|---|---|
| % Land Area | 5.1 | 8.3 | 17.6 | 31.6 | 19.8 | 12.5 | 3.0 | 2.1 |

Source: Department of Meteorological Services

### (d) Variability of Rainfall

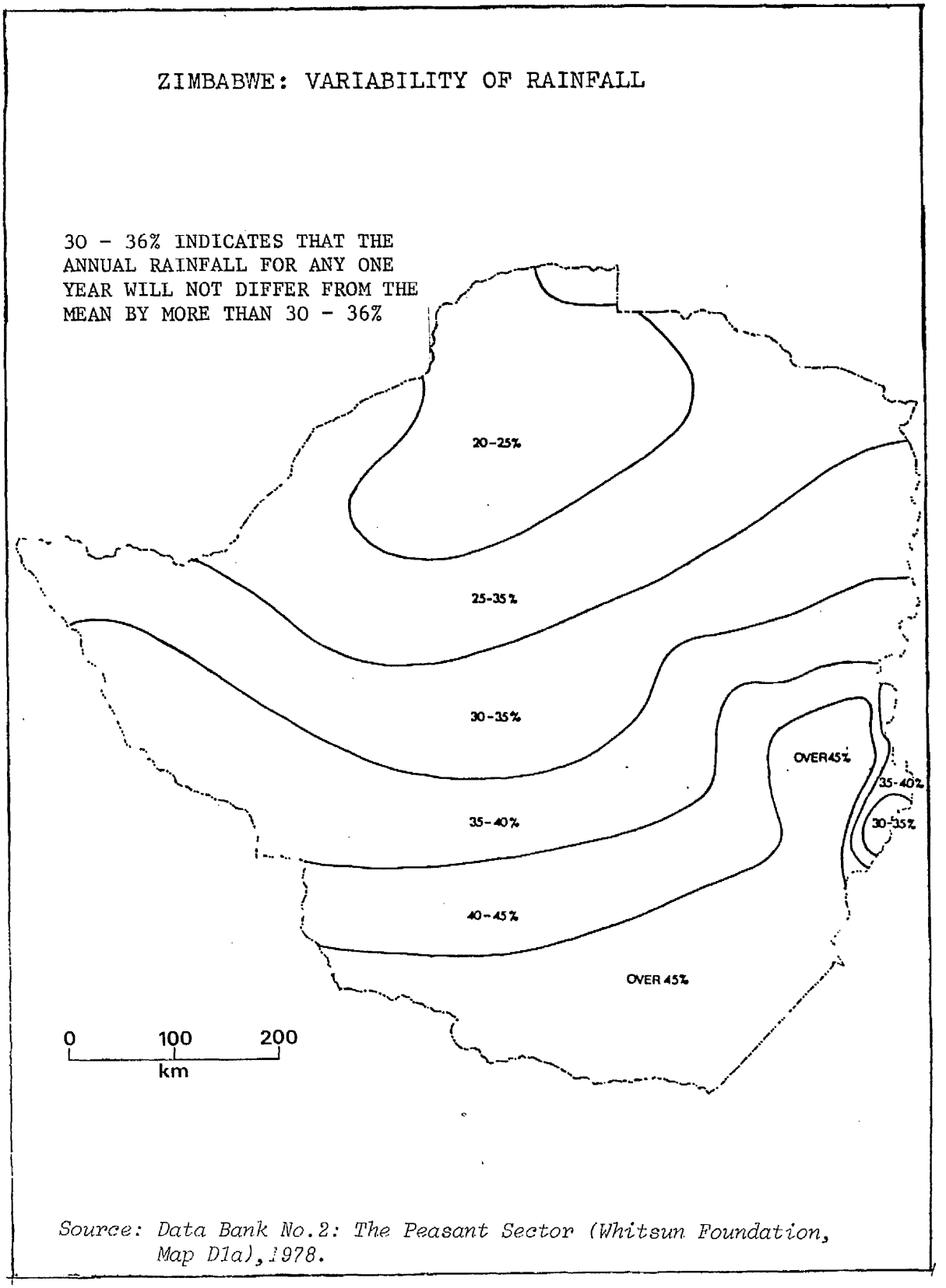
A feature of the rainfall which affects agricultural production is its variability and reliability. As shown on Figure 3.6 variability in total precipitation ranges from 20 per cent in the north of the country to over 45 per cent in the south. This means that, although two places might have the same mean annual precipitation, they are not necessarily comparable in agricultural potential. The probability of mid-season droughts is also related to the variability of rainfall,

**ZIMBABWE: MEAN ANNUAL RAINFALL**




*Source: Data Bank No. 2: The Peasant Sector (Whitsun Foundation Map D1), 1978.*

Fig. 3.5




*Source: Data Bank No.2: The Peasant Sector (Whitsun Foundation, Map D1a), 1978.*

Fig. 3.6

being higher in the south and west than in the north and east. Cropping in the south and west is, therefore, more risky and the growing season much shorter than in the north and east. It is clear, therefore, that extensive irrigation schemes and/or specially developed varieties of hybrid seeds would often be necessary for a successful agricultural enterprise in the west and south of the country.

## 2.04 Surface Water

The introduction of irrigation for agricultural purposes depends on the availability of surface water. Zimbabwe is well endowed with surface water. However, because of the torrential nature of Zimbabwe's rainfall,

> "Between 1 per cent and 5 per cent of the precipitation percolates to the underground reserves, 5 per cent-15 per cent runs off into streams and rivers with the balance lost through evaporation and transpiration" (Peter Thomas and Associates, 1980)(2)[4]

Kay (1970) also suggests that:

> "possibly as much as 65 per cent" (3)

of total rainfall is wasted in run-off. This, together with the seasonality and variability of rainfall, has made multiple cropping production a difficult agricultural proposition. Some form of irrigation schemes are therefore of vital importance in the improvement of Zimbabwe's agricultural industry.

## 2.05 Surface Water Storage

> "The often marked seasonality of rainfall exerts an overall control on water availability and agricultural systems whilst variability imposes a degree of uncertainty" (Jackson, 1977) (4)

Equally, the seasonality and variability of Zimbabwe's rainfall, the erratic flow of its rivers, together with evaporation rates as already described, have imposed an even greater degree of farming uncertainty. This has necessitated the construction of a large number of water

storage facilities throughout the country.

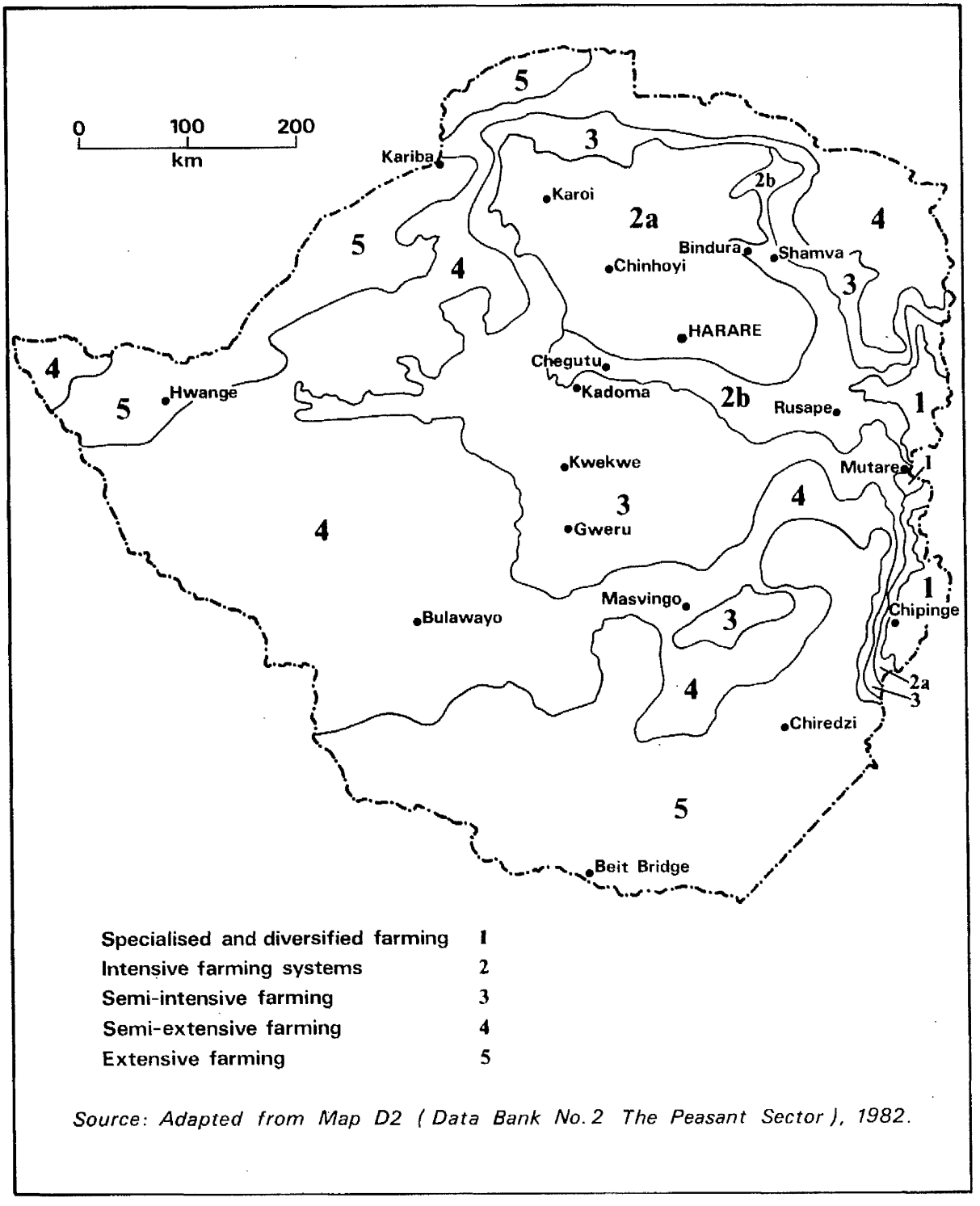
Table 3.3 Temporal Distribution of Mean Annual Rainfall

| Year | Mean Rainfall (mm) | Index |
|---|---|---|
| 1966/67 | 677.4 | 100 |
| 1967/68 | 404.9 | 60 |
| 1968/69 | 716.0 | 106 |
| 1969/70 | 538.7 | 80 |
| 1970/71 | 577.3 | 85 |
| 1971/72 | 806.0 | 119 |
| 1972/73 | 371.1 | 55 |
| 1973/74 | 1,003.5 | 149 |
| 1974/75 | 819.9 | 121 |
| 1975/76 | 736.7 | 109 |
| 1976/77 | 748.4 | 111 |
| Normal | 675.3 | 100 |
| Average: 1966-77 | 665.2 | 99 |

Source: Department of Meteorological Services

Of the 310 large dam sites known to the Ministry of Water Development, 110 dams were constructed, mostly during the late'60s and early '70s. The majority of the dams are multi-purpose, although the agricultural sector uses 85 per cent of the total water consumed (excluding Kariba). However, despite the potential for irrigation, water - not soil - is still the most limiting resource available for agricultural expansion.

## AGRO-ECOLOGICAL REGIONS OF ZIMBABWE




| | |
|---|---|
| Specialised and diversified farming | 1 |
| Intensive farming systems | 2 |
| Semi-intensive farming | 3 |
| Semi-extensive farming | 4 |
| Extensive farming | 5 |

*Source: Adapted from Map D2 ( Data Bank No. 2 The Peasant Sector ), 1982.*

Fig. 3.7

## 2.06 Natural Farming Regions of Zimbabwe

### (a) Definition

Vincent and Thomas (1960) made an in-depth study of the natural controls governing agricultural land use and regional productive potential, primarily on the basis of climatic differences, and divided the country into six Natural Farming Regions. They are also known as the agro-ecological regions. For the purpose of this thesis a natural farming region

> "is conceived as a relatively large area wherein agricultural development is and will be conditioned by a dominant natural characteristic" (Phillips et al., 1962) (5).

The principal characteristic used to demarcate the agro-ecological regions is adequacy and efficiency of rainfall. It is also recognized that within these regions varying systems of land use are further conditioned by such factors as soil type and relief. Vincent and Thomas's survey was updated in 1978 by the Department of Conservation and Extension, in the Ministry of Agriculture, which used the average number of rainy pentads[5], experienced in a season, as the basis for the demarcation of the natural farming regions.

### (b) Agricultural Potential and Distribution

Agricultural potential associated with each region concerns the production of those types of livestock and those crops which, in the majority of seasons, with efficient management, do well in various agro-ecological zones of Zimbabwe, and Table 3.4 shows the division of the country by Natural Farming Regions.

(i) Natural Farming Region I covers the higher and more mountainous Eastern Highlands. Rainfall is high, with mean annual records of over 1,000 mm in areas above 1,700 metres in altitude, and those of

above 900 mm in areas below 1,700 metres. Temperatures are comparatively low. The region is suitable for specialized and diversified farming, producing plantation crops - deciduous fruit, forestry (wattle and pine), tea and coffee - potatoes, vegetables and intensive livestock - mainly dairy cows.

Table 3.4 Division of Land by Natural Region

| Natural Region | Hectarage | Percentage of Land |
|---|---|---|
| I | 613,242 | 1.56 |
| II | 7,343,160 | 18.67 |
| III | 6,855,051 | 17.43 |
| IV | 13,010,215 | 33.08 |
| V | 10,288,688 | 26.16 |
| X | 1,220,171 | 3.10 |
| Totals | 39,330,527 | 100.00 |

Source: Vincent and Thomas (1960) - with conversion of acres to hectares.

(ii) Natural Farming Region II is mainly in the north-eastern part of the country, with moderate summer rainfall of between 750 mm and 1,000 mm per annum. Two sub-regions have been defined within this region.

Sub-region IIa receives an average of at least 18 rainy pentads per season, and normally enjoys reliable conditions. It rarely experiences prolonged dry spells in summer. The region is suitable for intensive systems of farming based on crops and/or livestock production.

Sub-region IIb receives an average of 16-18 rainy pentads per season. It is subject to rather more severe dry spells during the rainy season,

or to the occurrence of relatively short rainy seasons. Intensive crop production with subsidiary livestock holding is the dominant farming system in this sub-region.

(iii) Natural Farming Region III, as shown on Figure 3.7, borders region II, with a small area also found in the Masvingo Province south-east of Masvingo town. Region III has an annual rainfall of between 560 mm and 710 mm, and receives an average of 14-16 rainy pentads per season. Temperatures are generally high, between 19°C and 24°C. The region is subject to severe mid-season dry spells, and therefore is marginal for maize, tobacco and cotton, or for farming enterprises based on crop production alone. It is more suited to semi-intensive livestock production. Vincent and Thomas (1960) have designated it a semi-intensive farming area.

(iv) Natural Farming Region IV covers about one-third of the total surface area of Zimbabwe (Table 3.4), and most of the land is between 900 metres and 1,220 metres in altitude. The region experiences fairly low total rainfall, between 450 mm and 560 mm per annum. The region is also susceptible to periodic seasonal droughts and severe dry spells during the rainy season. Such conditions render the area too uncertain for reliable cropping except in those localities with slightly favourable conditions. The recommended farming system in this region is semi-extensive livestock production, with a small area devoted to drought-resistant fodder cropping and subsistence.

(v) Natural Farming Region V is the second largest region in the country (26.16 per cent). Included in this region are those areas below 900 metres - for example, the Zambezi Valley and the Sabi-Limpopo Basin (Figure 3.2). Rainfall is low, less than 500 mm a year, and

erratic. This makes the area suitable only for extensive forms of livestock production, yet nearly 30 per cent of peasant land is in this region. This is a severe handicap in improving peasant farming.

(vi) Natural Farming Region X is scattered all over the country. It is unsuitable for any form of agricultural utilisation. The region consists of excessively broken country, flood plains, swamps, or very poor soil. The Zambezi escarpment offers a good example of this region.

Roger Riddell (1978) indicates that

> "In general, the Agro-ecological analysis of the country shows that approximately 38 per cent of the land area is suitable for crop production (Regions I-III) and about 60 per cent is suitable for some sort of livestock production (Regions IV and V)"(6)

It must be noted, however, that the above recommendations are based on the assumptions of dryland farming; if artificial variables, such as irrigation or cattle feeding in the dry season, are introduced the agricultural potential of Zimbabwe is changed and enhanced.

## 3. POLITICAL ENVIRONMENT

### 3.01 Political Divisions

Zimbabwe has been divided administratively, since 1972, into eight provinces, namely: Manicaland, Mashonaland Central, Mashonaland East, Mashonaland West, Masvingo, Matebeleland North, Matebeland South and Midlands (Figure 3.8). Before 1972 there were seven provinces, when Mashonaland had only two instead of the present three. Wherever possible, data in this thesis have been given for these new provinces, but as some data (on population, etc.) have been based on the old provinces, this thesis has used such data in this form to facilitate reference to the original source.

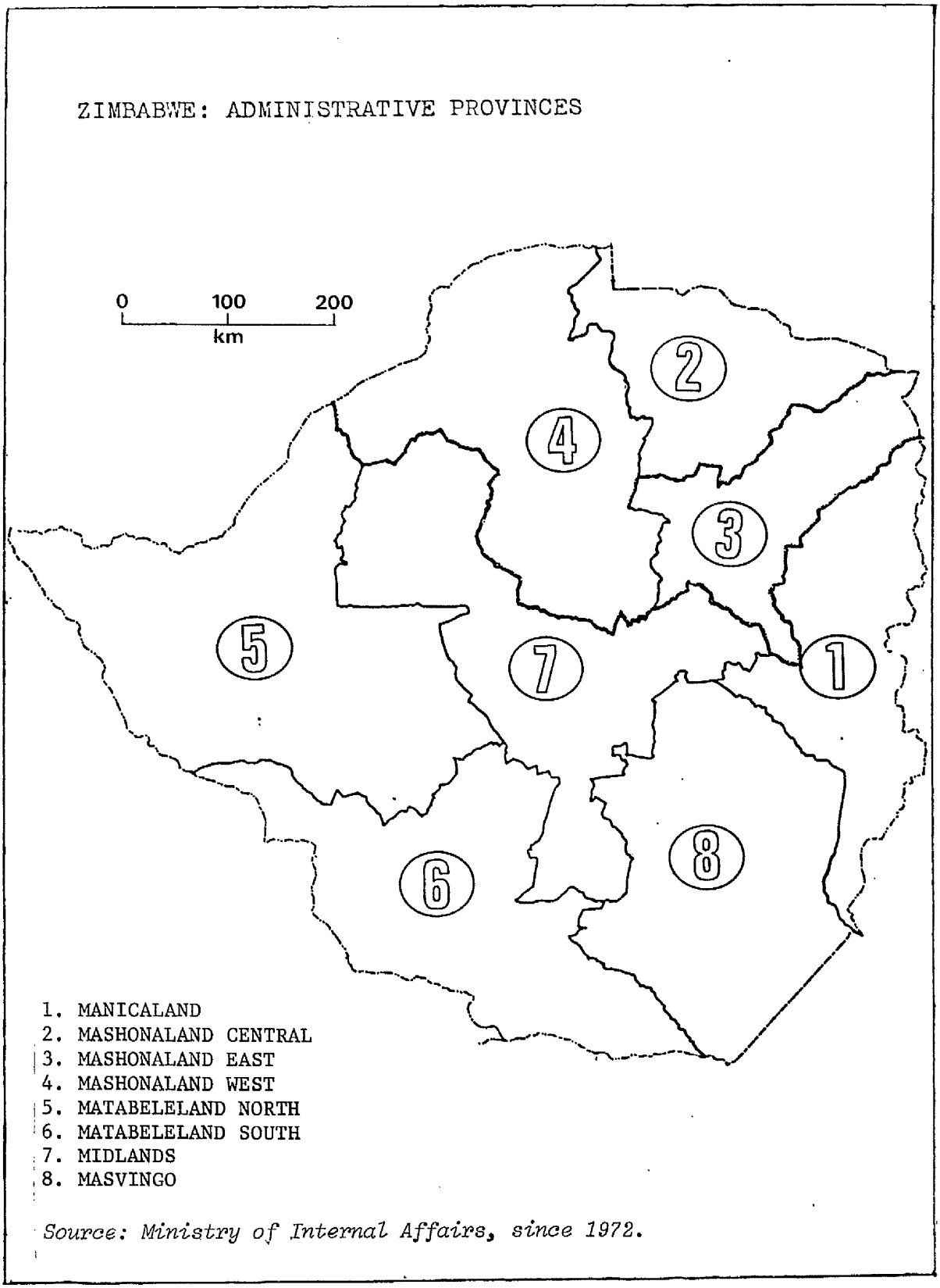

ZIMBABWE: ADMINISTRATIVE PROVINCES
0
100
200
km
1. MANICALAND
2. MASHONALAND CENTRAL
3. MASHONALAND EAST
4. MASHONALAND WEST
5. MATABELELAND NORTH
6. MATABELELAND SOUTH
7. MIDLANDS
8. MASVINGO
Source: Ministry of Internal Affairs, since 1972.

Fig. 3.8

The eight provinces are further divided into 54 geographical divisions known as districts (Table 3.5)[6] which are, in the traditional sector, further subdivided into 252 Chiefdoms[7], whose significance on peasant agriculture, as will be shown below, has been of paramount administrative and organisational importance for many years.

For the period under consideration, 1925 to 1981, the administration of peasant agriculture[8] in Zimbabwe has been the responsibility of several Departments in various Government Ministries. Between 1925 and 1929 peasant agriculture was administered by

> "..... the internally undifferentiated Division of Native Affairs" (Hughes, 1974)(7).

A new Department of Native Development was established in 1929 and this administered peasant agriculture till 1933, when the responsibility was again returned to the administrative arm of the Division of Native Affairs. Later, the Department of Native Agriculture was created in the Division of Native Affairs. When the Division of Native Affairs was abolished in 1963 and replaced by the Ministry of Internal Affairs, the Department of Native Agriculture was elevated to a ministerial level - the Ministry of Agriculture (Southern Rhodesia). When the Central African Federation was dissolved in 1964 this Ministry took responsibility for European agriculture, which had hitherto been catered for by the Federal Government, and served for the two sectors until 1969 when responsibility for peasant agriculture was returned to the Ministry of Internal Affairs, which itself was abolished in 1979.

Today, the local administration of the rural areas is under the Ministry of Local Government and Town Planning, while the direction of general development of the rural areas is under the Ministry of Lands, Resettlement and Rural Development, and the responsibility for agriculture, both sectors, has been vested in the Ministry of Agriculture.

Table 3.5 Districts and Provinces of Zimbabwe since 1972

| PROVINCE | DISTRICT | PROVINCE | DISTRICT |
|---|---|---|---|
| Manicaland | Buhera | Masvingo | Bikita |
| | Chimanimani | | Chibi |
| | Chipinge | | Chiredzi |
| | Inyanga | | Gutu |
| | Makoni | | Masvingo |
| | Mutare | | Mwenezi |
| | Mutasa | | Ndanga |
| Mashonaland Central | Bindura | Matabeleland North | Binga |
| | Centenary | | Bubi |
| | Chipuriro | | Bulawayo |
| | Darwin | | Hwange |
| | Mazowe | | Lupane |
| | Rushinga | | Nkayi |
| | Shamva | | Nyamandhlovu |
| Mashonaland East | Goromonzi | Matabeleland South | Beitbridge |
| | Harare | | Bulalima-Mangwe |
| | Marondera | | Gwanda |
| | Mudzi | | Insiza |
| | Murewa | | Matobo |
| | Mutoko | | Umzingwane |
| | Wedza | | |
| Mashonaland West | Chegutu | Midlands | Charter |
| | Kadoma | | Chilimanzi |
| | Kariba | | Gokwe |
| | Lomagundi | | Gweru |
| | Urungwe | | Kwekwe |
| | | | Mberengwa |
| | | | Shurugwi |
| | | | Zvishavane |

Source: Ministry of Internal Affairs

The significance of these changes and their implications in the transformation of peasant agriculture is the subject of analysis elsewhere in this thesis.

### 3.02 Land Division Patterns

The total land area of Zimbabwe is 39 million hectares. Of this, 33 million hectares have been set aside for agriculture. The remainder is designated National Land [9], reserved for wildlife, national parks, and further assignment. This is referred to as Other Land in Figure 3.1.

Under the 1979 British Lancaster House sponsored Constitution, Zimbabwean agricultural land is divided into two categories, namely: commercial land and communal land. Commercial land is open to purchase under freehold title and communal land is held under communal tenure by various ethnic groups in the 252 Chiefdoms, who are empowered to allocate arable plots to peasants in their jurisdiction and allow them access to communal grazing land. The present independent government intends to make radical changes about land allocation authority.

Before the Lancaster House Independence Constitution, commercial land was divided racially into European farming land (90 per cent) and the African Purchase Land (10 per cent). As Independent constitutional changes have made little practical difference to the racial ownership and occupation of agricultural land, this thesis will extensively use the pre-independence categories (Table 3.6). Such categorisation will also facilitate historical analysis and understanding of the development of peasant agriculture. Table 3.6 shows the proportional distribution of Natural Farming Regions on a racial pattern.

Table 3.6 Distribution of Natural Farming Regions by Land Categories

| Agro-Ecological Region | Total Area Hectares | Percentage of Land | Proportions of Various Land Categories | | | |
|---|---|---|---|---|---|---|
| | | | General Land | Communal Land | Purchase | National |
| I | 613,242 | 1.6% | 71% | 13% | - | 16% |
| II | 7,343,160 | 18.7% | 69% | 21% | 4% | 6% |
| III | 6,855,051 | 17.4% | 45% | 39% | 4% | 12% |
| IV | 13,010,215 | 33.0% | 28% | 50% | 4% | 18% |
| V | 10,288,688 | 26.2% | 26% | 49% | 2% | 23% |
| X | 1,220,171 | 3.1% | 2% | 50% | 4% | 44% |
| Totals | 39,330,527 | 100.0% | - | - | - | - |

Source: Adapted from Hughes, 1974 (Table 1) and Riddell, 1978 (Table 1)

Although certain writers feel rather reluctant to admit that land in Zimbabwe was racially divided into the "best"-"worst" basis, it, nevertheless,

> "... is clear from the table most land owned by Africans is in regions 3-5 where lower and erratic rains and lighter soils are not suited to intensive methods of farming" (Hume, 1977)(8).

## 4. ECONOMIC MILIEU

### 4.01 Characteristics of the Agricultural Industry

The main feature characterizing Zimbabwean agriculture is its dual nature, which comprises two diverse and somewhat disparate sectors - the commercial farming sector and peasant agriculture.

Large-scale commercial farming land consists of 15.2 million hectares, mostly individually owned but some corporately so. Currently, there are about 5,000 farms in this sector. This gives an average of 3,040 hectares per farm; some ranches are, however, as big as 25,000 hectares. The smaller section of commercial farming consists of 66 African Purchase Lands, covering 1.5 million hectares, of 8,809 occupied farms, 344 vacant farms, and 428,273 hectares of unplanned area.

The communal lands, which are the focus of this thesis, are divided into 165 former Trust Lands. They cover 16.3 million hectares, and currently hold between 750,000 and 780,000 families or peasant farming units[10], giving a nominal average of 20 hectares per unit. Of the 212 peasants interviewed, over 94 per cent of them own between 0.4 and 5 hectares of arable land each. This situation - of acute peasant land shortage - was confirmed by the then Rhodesian Government when it admitted in July, 1978, that:

> "..... the Tribal Trust Lands were supporting 2.5 million in excess of their safe carrying capacity" (Tickner, 1979)(9).

The general technical characteristics of Zimbabwean agriculture - which apply as much to the peasant sector as to commercial agriculture - are that it is diverse and relatively land extensive, with a generally low degree of capital intensity, and in recent years it has been becoming increasingly input-intensive. In most years these methods have yielded sufficient growth in production both to feed the rapidly growing population and leave a sizeable surplus for export.

## 4.02 Position in the National Economy

Zimbabwe's Gross National Product (GNP), which in 1980 was Z$3,313 million, qualifies the country as a major economic power in Sub-Saharan Africa. Some commentators rank it third to South Africa and Nigeria (Clark, 1980; Stoneman and Davies, 1981:95).

Unlike most developing countries where one primary sector dominates the economy, and often one internationally traded crop or mineral is the basis of that sector, the Zimbabwean economy is highly diversified and broadly based. Table 3.7 shows the sectoral diversification of the Zimbabwean economy. The diversity of the country's natural resources is responsible for the significantly balanced nature of the economy. There is diversity also within the sectors.

For example, in agriculture, tobacco, maize, sugar, citrus fruits, beef and animal products are of vital importance; while in mining six minerals, namely: asbestos, gold, copper, chromium, nickel and coal are of comparable significance; and the manufacturing industry has progressed well beyond merely the processing of local primary products, into both the capital goods industries and a range of import-substituting products. Peter Thomas and Associates (1980), a firm of Financial and Agricultural Consultants, notes that

> "Because of the degree of diversification, the economy is more stable than those of countries dependent on one major primary sector and one or two major internationally traded primary products" (10)

Table 3.7 GDP at Factor Cost by Sector (Z$ Million)

| Sector | 1960 | | 1965 | | 1970 | | 1975 | | 1980 | |
|---|---|---|---|---|---|---|---|---|---|---|
| | Amount | % | Amount | % | Amount | % | Amount | % | Amount | % |
| Manufacturing | 93 | 17 | 127 | 19 | 210 | 22 | 450 | 24 | 796 | 24 |
| Agriculture and Forestry | 99 | 18 | 119 | 17 | 153 | 16 | 323 | 17 | 469 | 14 |
| Distribution, etc. | 98 | 18 | 105 | 15 | 136 | 14 | 253 | 13 | 466 | 14 |
| Public Administration | 29 | 5 | 40 | 6 | 62 | 7 | 127 | 7 | 299 | 9 |
| Mining and Quarrying | 28 | 5 | 49 | 7 | 71 | 7 | 126 | 7 | 264 | 8 |
| Transport and Communication | 49 | 9 | 76 | 11 | 86 | 9 | 132 | 7 | 257 | 8 |
| Others | 160 | 28 | 167 | 25 | 238 | 25 | 474 | 25 | 761 | 23 |
| TOTAL | 556 | 100 | 683 | 100 | 955 | 100 | 1883 | 100 | 3312 | 100 |

Source: National Accounts of Zimbabwe, 1980

Despite a seemingly declining share in GDP contribution, the agricultural sector is, in many respects, the most important in the country. It provides the source of income for nearly 75 per cent of the population and 36 per cent of total wage employment. Agriculture also generates over a third of foreign exchange earnings, and produces a substantial share of domestic inputs for local manufacturing.

## 5. AGRICULTURAL SUPPORT BASE

The agricultural support base is defined, for the purpose of this thesis, as the physical capital and the institutions or organisations, both public or private, which provide economic and ancilliary services to, and which have a significant effect, directly or indirectly, upon the economic functioning of the individual farm firm, but which are external to the separate individual farm units. The base consists of all those institutions and infrastructures whose functioning is vital and contributory to the efficient economic performance of the agricultural industry.

### 5.01 Institutional Framework

After the Unilateral Declaration of Independence in 1965 and the consequent imposition of sanctions in 1966 the then Rhodesian Government saw a need for diversification in production, increased control over marketing and prices, and encouragement of new developments to ensure supplies of essential crops such as cotton, sugar and wheat. So the period since 1965 was one of considerable creation, adaptation and consolidation of institutions dealing with different aspects of agricultural industry - extension and training, development and input supplying, marketing and prices, research and credit. Accordingly, a number of statutory bodies were created to meet these needs.

Agricultural extension and training is one of the oldest agricultural institutions in Zimbabwe. Yet, as has already been shown, the promotion of peasant agriculture and the training of peasant farmers have changed Ministries and departments nearly throughout the history of the extension services. Despite these frequent changes, there is ample evidence, as will be shown later, that extension programmes achieved a fairly satisfactory level of knowledge and skill among the peasant farming population.

In 1967 the Agricultural Marketing Authority (A.M.A.) was established as a parent body to provide services and finance for all state marketing agencies[11]. The others include the Sabi Limpopo Authority (S.L.A.) which was set up in 1970 to develop the potential of the south-eastern Lowveld; the Agricultural Development Authority (A.D.A.), set up in 1971, which was charged with the responsibility of developing the national agricultural potential; and the Tribal Trust Land Development Corporation (TILCOR), set up in 1968 to foster development in the former Trust Lands. The Agricultural Finance Corporation was set up in 1971 to provide service in the consolidation of several existing agencies offering credit to large-scale commercial farmers; and the Agricultural Research Council was established in 1971 to provide greater co-operation in research undertaken by various bodies in the country.

During the same period, there has also been a considerable increase in marketing controls. For example, in 1965 only 35 per cent of the agricultural output was sold through the statutory bodies, and by 1973 this had increased to 70 per cent. For marketing purposes, crops are classified as either controlled or non-controlled. All controlled crops - maize, groundnuts, cotton, soya beans, wheat and sorghum - are subject to pre-negotiated and fixed prices. It must be emphasized, though, that most of these developments were benefitting the commercial sector of the farming industry.

The new Independent Zimbabwean Government has consolidated and expanded most of these institutions. They have, however, re-adjusted certain institutions to enable them to provide services to peasant farmers who were previously discriminated against on racial lines.

### 5.02 Infrastructural Facilities

Agricultural development requires adequate availability of supporting facilities - sources of the necessary inputs, marketing depots, communication, transport and reliable roads and/or rail networks.

The major sources of the necessary inputs have not satisfactorily supplied the needs of the agricultural industry, the hardest hit, as will be shown elsewhere in this thesis, being the peasant sector. The network of input supply and marketing depots and livestock sale pens have been poorly developed (Figure 5.2), and again the hardest hit is the peasant sector. Communication systems, especially in the far-flung parts of the rural areas, are poor. As can be seen on Figure 3.1 above, roads are poor and restricted to the Highveld which is mainly occupied by large-scale commercial farmers. This affects the collection of inputs and the disposal of products, and has imposed prohibitive transport costs on the poor peasants.

The problem of the agricultural support base is likely to be ameliorated when the present Government's plans of creating district growth points and local service centres are eventually accomplished.

## 6. DEMOGRAPHIC FEATURES

Agricultural transformation depends on the people and concerns people. Understanding Zimbabwe's population levels and growth, distribution and densities, their economic aspirations and literacy levels is therefore a prerequisite for explaining the success or failure of any development strategy.

## 6.01 Population Levels and Growth

The 1969 population national census, the most recent one carried out in that country, is used as the base from which all present population estimates are projected. According to that census Zimbabwe's population grows at the rate of 3.6 per cent per annum. This means that agricultural output must be made to grow at an equally high rate, and hence the need for increasing productivity.

In December 1978, official estimates of the population were put at 7.04 million[12]. Of this, 6.76 million (96%) were African, 0.25 million (3.5%) were Europeans, 24,200 (0.3%) were Coloureds (people of racially mixed origin) and 10,600 (0.1%) were Asian.

## 6.02 Population Distribution and Densities

Table 3.8 shows the distribution of Zimbabwe's population by location. It can be seen that 86 per cent of the non-African population lives in the main urban centres, while nearly 23 per cent of the African population lives in the main towns and cities. It is also shown that 62 per cent of the country's African population lives in the former Trust and Purchase Lands, and this is 80.5 per cent of the African rural population.

Table 3.8 Population Distribution by Land Category

| LAND CATEGORY | EUROPEAN, ASIAN COLOUREDS | | AFRICANS | | TOTALS | |
|---|---|---|---|---|---|---|
| | TOTAL (000's) | PER CENT | TOTAL (000's) | PER CENT | (000's) | PER CENT |
| African Rural Land | 2.8 | 1.0 | 4,192.2 | 62.1 | 4,194.9 | 59.7 |
| European Rural Land | 36.9 | 13.0 | 1,013.3 | 15.0 | 1,050.2 | 14.9 |
| Urban Areas | 245.1 | 86.0 | 1,549.7 | 22.9 | 1,794.9 | 25.4 |
| TOTAL | 284.8 | 100.0 | 6,755.2 | 100.0 | 7,040.0 | 100.0 |

Source: Calculated from Monthly Digest of Statistics, January, 1979, Supplement, Economic Survey of Rhodesia, 1978, Ministry of Finance, April, 1979 and Rhodesia Census of Population 1969, C.S.O. Salisbury, 1976.

Of great importance to the purpose of this thesis is the age and sex spatial distribution of Zimbabwe's people. It is estimated that 49 per cent of the country's 4.2 million rural population is under the age of fifteen years, and that 3 per cent are over the age of sixty years. This gives a dependency load of 52 per cent of the population. Figure 3.9 and Table 3.9 show the age and sex distribution of the Africans in the peasant sector and those in the urban sector. It is demonstrated that there is a relatively large proportion of females to males and of children to adults in the former, and that there is a predominance of male adults in the latter. Such a disparity in the distribution of the African population between the two sectors effectively deprives the peasant sector of much of its able-bodied labour force. Farm work is, therefore, left to the women, the aged and the young.

The density of rural African population in different areas varies considerably. Using the 1969 Census data and the agro-ecological regions, Kay (1975) showed that there was a clear relationship between land quality and population densities, and that within each land category there was a wide range of population pressure (Figures 3.10 and 5.1). A safe carrying capacity or a critical level of population is difficult to determine. However, Kay showed that in 1969, over 43 per cent of the African areas fell within an acceptable density. The remainder of the land was subject to varying degrees of over-population and the associated cycle of destructive processes. An estimated 83 per cent of the population was living in over-populated areas in 1969, and since then the Communal Lands population has increased by over 30 per cent.

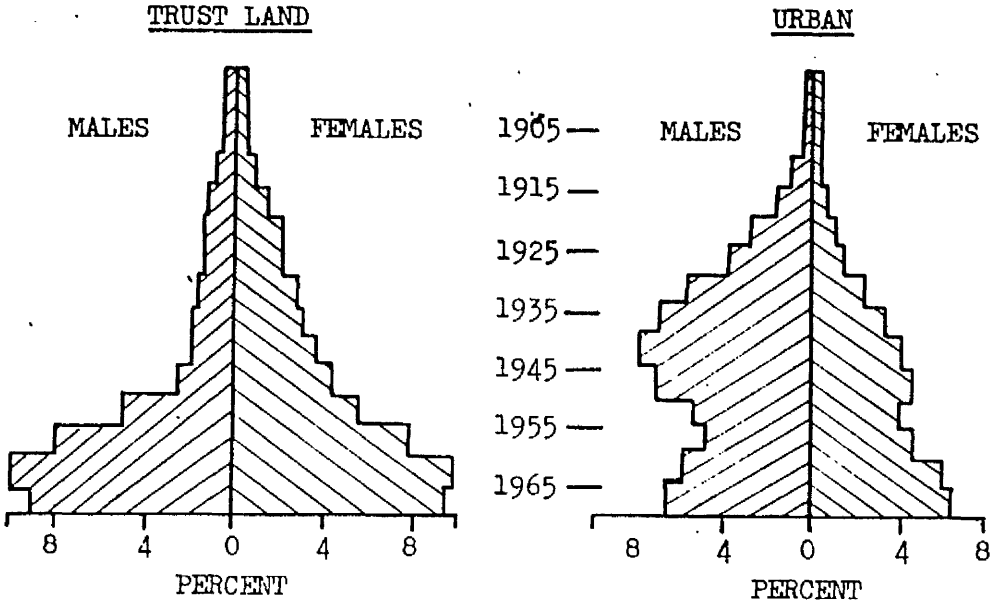
In view of such population distribution patterns and densities, peasant farming co-operation - as an agricultural development strategy - was therefore geared to improve the quality of the African rural labour force, to promote intensive land use practices, and to prevent the

Table 3.9 Age and Sex Distribution of Africans by Land Category (000s)

| AGE IN YEARS | TRUST LANDS | | | | PURCHASE LANDS | | | | EUROPEAN AREAS | | | | TOTALS | | | | GRAND TOTAL | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | MALES | | FEMALES | | MALES | | FEMALES | | MALES | | FEMALES | | MALES | | FEMALES | | | |
| | No. | % | No. | % | No. | % | No. | % | No. | % | No. | % | No. | % | No. | % | No. | % |
| 0- 4 | 331.7 | 25.0 | 322.6 | 20.4 | 12.5 | 19.4 | 13.2 | 19.3 | 164.3 | 16.4 | 154.6 | 21.7 | 508.5 | 21.3 | 490.4 | 20.7 | 998.9 | 21.0 |
| 5- 9 | 269.6 | 20.3 | 263.6 | 16.6 | 10.5 | 16.3 | 10.4 | 15.2 | 112.1 | 11.2 | 108.8 | 15.3 | 392.2 | 16.4 | 382.8 | 16.2 | 775.0 | 16.3 |
| 10-14 | 214.8 | 16.2 | 217.4 | 13.7 | 10.9 | 16.9 | 10.6 | 15.5 | 87.0 | 8.7 | 81.0 | 11.4 | 312.7 | 13.1 | 309.0 | 13.1 | 621.7 | 13.1 |
| 15-19 | 140.2 | 10.6 | 165.8 | 10.5 | 14.4 | 22.3 | 8.6 | 12.6 | 95.2 | 9.5 | 75.8 | 10.6 | 249.8 | 10.4 | 250.2 | 10.6 | 500.0 | 10.5 |
| 20-24 | 77.6 | 5.9 | 123.0 | 7.8 | 3.5 | 5.4 | 5.1 | 7.5 | 122.0 | 12.2 | 77.6 | 10.9 | 203.1 | 8.5 | 205.7 | 8.7 | 408.8 | 8.6 |
| 25-29 | 51.8 | 3.9 | 102.0 | 6.4 | 3.2 | 5.0 | 4.0 | 5.9 | 113.3 | 11.3 | 64.6 | 9.1 | 168.3 | 7.0 | 170.6 | 7.2 | 338.9 | 7.1 |
| 30-34 | 46.1 | 3.5 | 84.6 | 5.3 | 1.9 | 3.0 | 2.9 | 4.2 | 88.9 | 8.9 | 50.4 | 7.1 | 136.9 | 5.7 | 137.9 | 5.8 | 274.8 | 5.8 |
| 35-39 | 39.9 | 3.0 | 71.7 | 4.5 | 1.5 | 2.3 | 2.6 | 3.8 | 69.7 | 7.0 | 35.5 | 5.0 | 111.1 | 4.6 | 109.8 | 4.6 | 220.9 | 4.6 |
| 40-44 | 36.1 | 2.7 | 58.5 | 3.7 | 0.9 | 1.4 | 2.7 | 3.9 | 51.6 | 5.2 | 25.1 | 3.5 | 88.6 | 3.7 | 86.3 | 3.6 | 174.9 | 3.7 |
| 45-49 | 31.1 | 2.3 | 49.1 | 3.1 | 1.5 | 2.3 | 2.2 | 3.2 | 36.8 | 3.7 | 15.7 | 2.2 | 69.4 | 2.9 | 67.0 | 2.8 | 136.4 | 2.9 |
| 50-54 | 26.7 | 2.0 | 39.6 | 2.5 | 0.8 | 1.2 | 1.9 | 2.8 | 25.4 | 2.5 | 9.5 | 1.3 | 52.9 | 2.2 | 51.0 | 2.2 | 103.9 | 2.2 |
| 55-59 | 21.9 | 1.6 | 30.4 | 1.9 | 0.9 | 1.4 | 1.4 | 2.1 | 15.2 | 1.6 | 6.5 | 0.9 | 38.0 | 1.6 | 38.3 | 1.6 | 76.3 | 1.5 |
| 60-64 | 16.1 | 1.2 | 22.5 | 1.4 | 0.6 | 0.9 | 1.1 | 1.6 | 9.4 | 0.9 | 3.7 | 0.5 | 26.1 | 1.1 | 27.3 | 1.2 | 53.4 | 1.1 |
| 65+ | 24.0 | 1.8 | 34.3 | 2.2 | 1.4 | 2.2 | 1.7 | 2.4 | 9.1 | 0.9 | 4.3 | 0.6 | 34.5 | 1.4 | 40.3 | 1.7 | 74.8 | 1.6 |
| TOTAL | 1,327.6 | 100 | 1,587.1 | 100 | 64.5 | 100 | 68.4 | 100 | 1,000 | 100 | 713.1 | 100 | 2,392.1 | 100 | 2,366.6 | 100 | 4,758.7 | 100 |

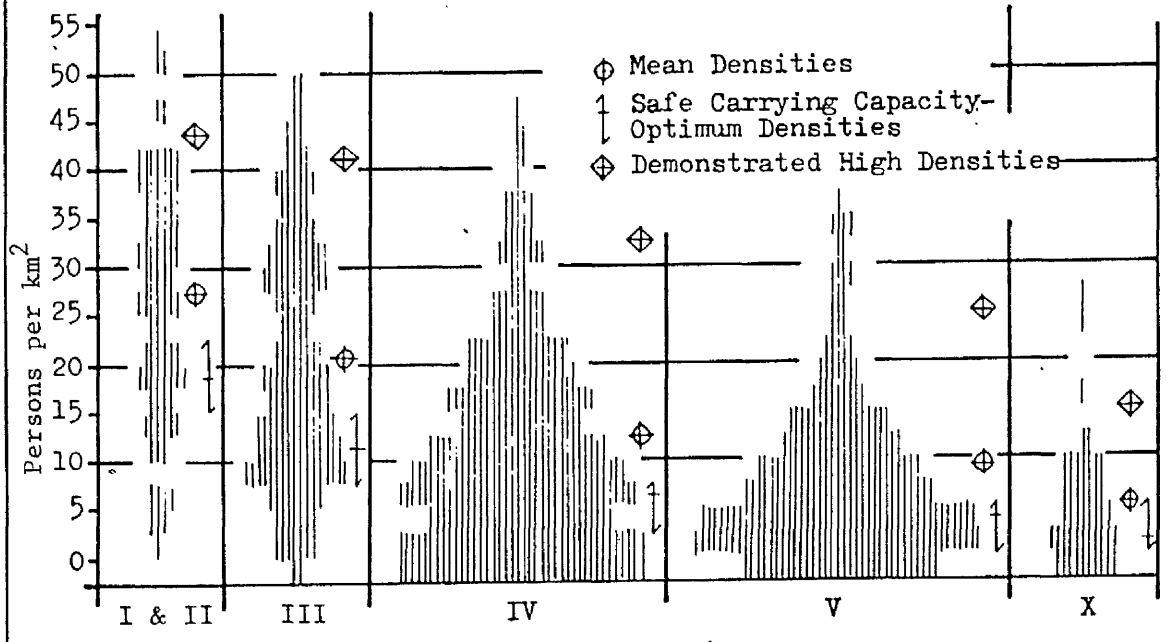
Source: 1969 Census of Population, Table 10, p. 65.

FIG. 3.9 AGE/SEX STRUCTURE AFRICAN POPULATION 1969




*Source: 1969 Census*

FIG. 3.10 POPULATION DENSITIES IN THE TRUST LANDS 1969




*Source: Rhodesia Science News, Vol.9, No.1, January 1975*

destruction of land and the depletion of the soil.

### 6.03 African Economic Aspirations and Literacy Levels

The theory of cultural dualism, mentioned in chapter one, attempts to explain the disparity levels and rates of agricultural growth between the peasant sector and the commercial farming sector. It maintains that peasant producers are not interested in producing for profit but are concerned only with satisfying a limited range of wants that is nearly static in character. This may have been true of some Zimbabwean peasants forty or fifty years ago. However, historical analysis of the Zimbabwean agricultural development, to be dealt with in chapters five and nine below, shows no evidence to support this theory. Given the right kind of development strategy within a conducive socio-political milieu, the Zimbabwean peasants are as economically aspiring as anybody else. Over 95 per cent of the peasant farmers interviewed stated that they would not be content with producing for subsistence only. This view was supported by all the agricultural extension assistants interviewed. Of the nine organisations (both parastatal and private) interviewed, six believe that peasant farmers have very high economic aspirations, while the remaining three think that there are some farmers who are not motivated enough to produce for profit.

One problem often cited as an obstacle in the transformation of peasant agriculture is illiteracy. According to United Nations' statistics the national African literacy rate in Zimbabwe is 30 per cent. Of the 212 peasant farmers interviewed for this research, 170 of them can read and write one or both of the vernacular languages. This gives a very high literacy rate of 80 per cent. Nearly 41 per cent of them can read and write English. Table 3.10 gives a breakdown of this information. Detailed analysis of those peasant farmers (362 of them) who attended agricultural

awareness courses at Silveira House in 1980 reveals that less than half can be classified as literate. Agricultural co-operation among these farmers is therefore most vital because literate members would help their illiterate colleagues.

Table 3.10 Literacy Rate of the Peasants Interviewed, 1981 (N = 212)

| ILLITERATE | LITERATE IN SHONA | LITERATE IN NDEBELE | LITERATE IN SHONA AND NDEBELE | LITERATE IN ENGLISH |
|---|---|---|---|---|
| 19.8%(42) | 76.4%(162) | 1.9% (4) | 1.9% (4) | 40.7% (86) |

Source: Research data, 1981.

## 7. CONCLUSIONS

This chapter has attempted to put into perspective Zimbabwean agriculture in general and peasant agriculture in particular. It is hoped that the foregoing descriptive account of the agricultural setting is adequate as a background to the understanding of peasant agriculture in Zimbabwe. It is equally hoped that the account will facilitate the analysis of the problems of peasant farming transformation and the possible contribution of a selected set of development strategies towards the diffusion of modern agricultural innovations necessary for the improvement of peasant productivity.

## CHAPTER 3 - FOOTNOTES AND REFERENCES

3.1 Communal Lands were formerly known as Native Reserves, and most recently (up to 1980) as Tribal Trust Lands.

3.2 Systems of sedimentary rocks - the Kalahari, Cretaceous, Treassic, Permian, Umkondo and Lomagundi. These systems occur elsewhere in the country.

3.3 Inter-Tropical Convergence Zone is an area of low atmospheric pressure near and more or less parallel to the equator, where the NE and SE Trade Winds meet.

3.4 Peter Thomas and Associates are Financial and Agricultural Consultants, who were writing for the Whitsun Foundation, 1980.

3.5 Pentads are five-day periods used in defining rain seasons (Griffiths, 1959).

3.6 One more district in Mashonaland East was to be gazetted in the near future.

3.7 According to J. A. B. Hughes (1974), "the Chiefdom can be conceived as being both a clearly defined territorial unit, and also as a group of people, the legal inhabitants of each of these territorial units" (page 16).

3.8 The administration of European agriculture was under a separate Ministry.

3.9 National Land also includes land which is still infested with tsetse fly, especially in the Zambezi Valley (Fig. 3.1).

3.10 The farming units were estimated at 750,000 families when the research was done in 1980/81. But current estimates put the figure at between 750,000 and 780,000 units.

3.11 The agencies include the Grain Marketing Board (all grains, oilseeds and coffee); the Cotton Marketing Board; the Cold Storage Commission (cattle and sheep); the Dairy Marketing Board. The Tobacco Marketing Board operates outside the Agricultural Marketing Authority (A.M.A.).

3.12 At a growth rate of 3.6% per annum the 1981 Zimbabwe's total population was estimated to be about 7.83 million people.

## SOURCES OF REFERENCES AND QUOTATIONS

3.1 Hance, W. A. 1977: Black Africa Develops, pg. 78.

3.2 Peter Thomas and Associates, 1980: Peasant Sector Credit Plan for Zimbabwe, Volume II (Whitsun Foundation), Section 1, pg. 5.

3.3 Kay, G. 1970: Rhodesia: A Human Geography (London), pp. 16-17.

3.4 Jackson, I. J. 1977: Climate, Water and Agriculture in the Tropics (Longman), p. 71.

3.5 Phillips, J. et al. 1962: Report on the Development of the Economic Resources of Southern Rhodesia, p. 104.

3.6 Riddell, R. C. 1978: The Land Problem in Rhodesia (Mambo Press), p. 27.

3.7 Hughes, A. J. B. 1974: Development in Rhodesian Tribal Areas (T.A.R. Research Foundation), p. 59.

3.8 Hume, I. M. 1977: Agriculture in Rhodesia (Whitsun Foundation) (mimeo), p. 2.

3.9 Tickner, V. 1979: The Food Problem - From Rhodesia to Zimbabwe, No. 8 (CllR, London), p. 10.

3.10 Thomas et al. 1980: op. cit., p. 1.

# CHAPTER 4

## THE PRESENT STATE OF PEASANT AGRICULTURE IN ZIMBABWE

### 1. INTRODUCTION

#### 1.01 Purpose and Scope

Understanding of the present state of the Zimbabwean peasant agriculture seems a prerequisite for the discussion of agricultural strategy designed to transform peasant agriculture. This chapter tries to give an analytical account of the major land-use patterns and farming systems. It will also assess the sector's contribution to the national economy and its ability to sustain the peasantry. It will try to do that by examining analytically the main features of peasant agricultural practices, techniques of production and the cropping patterns typical of peasant farming.

The chapter will also undertake a critical investigation of the productivity levels of peasant agriculture. These levels of productivity will be used to appraise the impact of the previous and present official efforts to improve peasant agriculture. It is hoped that this will gauge the effectiveness of various agricultural development strategies to be dealt with in subsequent chapters of this thesis.

#### 1.02 Sources of Data

Information from primary sources - that is, data collected from the peasants and the agricultural extension services - is limited in its spatial domain because it covers only three provinces. This chapter will therefore be utilizing data from secondary and tertiary sources which provide statistics on a national scale. The Ministries of Agriculture, and of Lands, Resettlement and Rural Development provide

most of such data. Information will also be drawn from the former Ministry of Internal Affairs. The Monthly Digest of Statistics also provides a rich source of data for this chapter. A number of publications, too numerous to mention, were also consulted. Personal experiences gained from personal participant observation among the peasants during the informal contacts made will also be extensively used to back up empirical data.

## 2. PEASANT LAND-USE PATTERNS

### 2.01 The Land and the Farming Holdings

As already mentioned in chapter three, Communal Lands comprise 16,279,400 hectares, which is about 42 per cent of the whole country. Table 4.1 shows that the actual area cropped in 1975 was 1,678,000 hectares. This is estimated to have increased to 2.4 million hectares by 1980/81, which shows that only 15 per cent of the Communal Lands is cultivated. The primary problem of overcropping is evident in all areas, with the exception of Mashonaland. This does not augur well for the conservation of the soil and the maintenance of its fertility.

Due to the rapid population expansion, referred to above, and to the return of the refugees who fled the country during the liberation war, the number of peasant cultivators is estimated to have increased from 690,000 in 1978/79 to between 750,000 and 780,000 in 1980/81. This gives an average area cropped of 3.2 hectares per family. This national average is 0.8 hectares more than the average area cropped by the peasant farmers interviewed in this research. Table 4.2 gives a breakdown of the area, in ha., cropped by the 212 peasants interviewed. From this table it can be seen that 55 per cent of the peasants in the sample own between 1.6 and 2.4 hectares each. It has already been noted in chapter 3 that the distribution of the peasant population is not even. In some

Table 4.1 Provincial Distribution of Communal Lands and Areas Cropped, 1975.

| Province | Total Area (000 ha) | Cropped Land (000 ha) | Ratio of Cropped To Total Land | Recommended Cropping % |
|---|---|---|---|---|
| Manicaland | 1,898 | 300 | 15.8% | 3.5% |
| Mashonaland | 4,025 | 340 | 8.4% | 12.5% |
| Matebeleland | 5,524 | 262 | 4.7% | 0.1% |
| Midlands | 2,716 | 439 | 16.2% | 3.1% |
| Masvingo | 2,116 | 337 | 15.9% | 3.1% |
| Total | 16,279 | 1,678 | 10.3% | 3.1% |

Source: Whitsun Foundation, Thomas et al, 1980.

Table 4.2 Land Ownership in Peasant Agriculture (N = 212)

| Size of Land (Ha.) | 0.4 | 0.8 | 1.2 | 1.6 | 2.0 | 2.4 | 2.8 | 3.2 | 3.6 | 4.0 | 4.5 | 5.0 | over 5.0 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| No. of Farmers | 8 | 10 | 26 | 44 | 5 | 68 | 6 | 9 | 10 | 6 | 5 | 8 | 7 |
| Percentage | 3.8 | 4.7 | 12.3 | 20.8 | 2.4 | 32.1 | 2.8 | 4.2 | 4.7 | 2.8 | 2.4 | 3.8 | 3.3 |

Source: Research Data, 1980/81

areas, the average land holding is extremely small, being nearly half the above national average.

It is relevant to note,at this point, that such a small size of land holding imposes some limitations on the peasant farmer's chances of improving his production. First, the farmer tends to be reluctant to adopt new experiments for fear that these experiments on his only piece of land may fail and hence put the family in danger of starvation. Secondly, as agriculture is the main source of food, most of the peasants find it hard to parcel out such small plots for diversified cash cropping. So most peasants tend to devote the whole 1.6 hectares to growing food crops. Such small land holdings tend to inhibit the diffusion of modern agricultural technology.

## 2.02 The Peasant Farming System

Before 1900 peasant agricultural practices were dominated by shifting cultivation. The white administrators, for various reasons, adopted and pursued a vigorous policy of agricultural stabilisation. Stabilisation was an official policy which not only discouraged shifting cultivation but which also strongly enforced, by persuasion and legislation, the practice of sedentary agriculture. Today peasant agriculture in Zimbabwe is sedentary. According to Esther Boserup's (1965) historical model of agricultural development, sedentary farming is brought about by population pressure on a given piece of land. The model regards population growth as an independent variable which determines changes in agricultural land-use systems and/or patterns and productivity. But this was not the case in the Zimbabwean situation.

Agricultural stabilisation was meant to ensure that only land suitable for cultivation was actually cultivated. This was considered essential in the interests of soil conservation. But failure on the part of the authorities to win the co-operation and support of the peasants led to

disastrous effects on the soil. Some peasants refused to adopt even such simple methods of soil conservation as contour-ridging. The result was so damaging that some areas have been rendered permanently useless. This has forced the authorities to bring those areas which were initially considered unsuitable for arable farming into cultivation.

The second reason for outlawing shifting cultivation was to convince and encourage peasants to adopt improved agricultural production techniques which would enable them to maintain the fertility of their arable land for perpetuity. But as there is more to this policy than just settle and encourage a person to farm the same parcel of land the end result was most disappointing. For one thing, the Government had no sufficient qualified extension staff to spread the improved agricultural techniques to all the peasant cultivators; and for another, most of the peasants, who had not been fully convinced of the necessity and importance of sedentary farming, deliberately resisted Government extension services. It must also be appreciated that knowledge alone is not enough in maintaining soil fertility. One needs livestock manure and/or sufficient will and labour to make compost manure, and cash to buy chemical fertilizers. Historical evidence on peasant agriculture shows that most of the peasants could not afford these inputs.

Peasant agriculture in Zimbabwe is predominantly mixed. Nearly every peasant cultivator rears some livestock besides growing crops. It will also be shown below that the bulk of peasant agriculture is for subsistence purposes. So every farmer has to grow some crops for family consumption. He also rears some livestock for the provision of food - milk and meat - and for draught power necessary in crop production.

Unlike the large-scale commercial farming which specialises by area and product, Zimbabwean peasant agriculture lacks regional and product specialisation. For example, more than 70 per cent of the maize grown by

commercial farmers is produced in the maize belt, the principal tobacco-producing areas are located in the regions best suited for profitable tobacco, and dairying is carried on in the most economic areas ideal for the production of dairy products. In contrast, there is little, if any, regional specialisation of production in the peasant sector. The same principal crops are grown throughout the country regardless of climatic conditions (Fig. 9.1). This lack of product specialisation also applies to livestock. While commercial farmers raise livestock for breeding purposes, or for slaughter, or for dairying, peasant producers do not generally distinguish in the end products of their herds.

Diversification of production, especially in a situation of uncertainty, makes a lot of sound economic sense, not only in micro-economic terms but also in macro-economic terms. However, any diversification can only be sensible if its criteria are productivity and profitability. But this is not the case in the Zimbabwean peasant sector. Some crops, especially those providing staple food, are grown and livestock raised in areas of sub-marginal productivity and profitability. It is no wonder, therefore, that Zimbabwean peasant agriculture is seriously underdeveloped. Its transformation is only possible therefore through the maximisation of the productivity and profitability of the peasant's most readily available factors of production - land and labour. It must, however, be stated that this does not minimize the importance of other factors, especially peasant entrepreneurship, and the effectiveness of capital.

## 2.03 Patterns of Production

In order to understand the dominant patterns of peasant production it is appropriate to look at the major products - both crops and livestock - produced by peasant cultivators.

The major crops grown by the Zimbabwean peasant farmers are maize (corn), rapoko (red millet), grey millet ('munga'), sorghum ('mapfunde'), groundnuts, groundpeas (nyimo), cotton, beans/cowpeas[1] and some rice. The growing of sunflowers and tobacco, especially the burley and oriental varieties, has recently become one of the most popular activities, especially among the co-operators and the Master Farmers. In addition, small quantities of sweet potatoes, water melons, pumpkins, cucurbits, cucumbers, garden vegetables, potatoes, some wheat and orchard fruits are also widely grown (Appendix IV). All these crops, except cotton, sunflowers and tobacco, are mainly produced for subsistence. The three exceptions - cotton, sunflowers and tobacco - are grown purely for commercial purposes. Grey millet, rapoko and sorghum are increasingly becoming very important in the expanding beer-brewing industry. So a good number of Zimbabwean peasants grow them for cash as well. Soya beans and sweet potatoes, though currently produced on a very small scale, seem to have a very promising commercial future because they fetch highly lucrative prices. In Zimbabwean peasant agriculture potatoes tend to be grown as a garden crop and wheat is produced as a winter crop in vleis (matoro) on an almost experimental scale and almost negligible in national terms. Both potatoes and wheat are classified under 'others' in Table 4.3 which shows all the crops grown in peasant agriculture. Table 4.3 also shows the percentages of the peasants in the sample who grow each of the major crops grown. According to this table, all the peasant farmers interviewed grow maize while 92.5 per cent of them also grow groundnuts. This shows that these two crops are the most important in peasant agriculture. Their popularity does not, however, necessarily mean that maize and groundnuts are the most economically profitable crops in peasant agriculture, especially when one realises that the soils of most Communal Lands are not among the best for the production of these crops. Possibly, peasants' preference of these crops is due to their dual purpose: they are grown for both consumption and cash. It must

be observed that any development strategy designed to transform peasant agriculture, as co-operation is intended to, must seek to reduce such mono-cultural dominance, especially when it is so obviously irrelevant or detrimental to the efficiency of agricultural resource use.

Table 4.3 Cropping Patterns in Peasant Agriculture (N = 212)

| Crop | Cropping | % |
|---|---|---|
| Beans/cowpeas | 28.8% | (61) |
| Cotton | 36.8% | (78) |
| Groundnuts | 92.5% | (196) |
| Groundpeas | 44.3% | (94) |
| Maize | 100 % | (212) |
| Millet | 31.6% | (67) |
| Others (garden, orchard) | 35.4% | (75) |
| Potatoes (sweet) | 46.2% | (98) |
| Rapoko | 48.6% | (103) |
| Rice | 34 % | (72) |
| Sorghum | 34.4% | (73) |
| Sunflowers | 25 % | (53) |
| Tobacco (Burley) | 17.5% | (37) |
| Tobacco (Oriental) | 21.2% | (45) |

Source: Research Data, 1980/81

It is also recognized that about 37 per cent of the peasants interviewed grow cotton, 25 per cent grow sunflowers, and about 39 per cent grow tobacco - the three purely cash crops. Can this be regarded as a sign that Zimbabwean peasant farmers are slowly but surely becoming commercially orientated? It must, however, be noted that these proportions are much larger than the true picture on the national scale, as will be shown below.

As already mentioned, one of the most common characteristics of Zimbabwe's peasant agriculture is its mixed nature. Livestock production is as important as crop production. Ecologically speaking, after the

Argentine and Australia, Zimbabwe has probably the best potential for export beef production in the world, but is as yet largely undeveloped. This point is supported by Riddell (1978) when he notes that:

> "In general, the Agro-Ecological analysis of the country shows that approximately 38 per cent of the land area is suitable for crop production (Regions I-III) and about 60 per cent is suitable for some sort of livestock production (Regions IV-V). This shows that Rhodesia (Zimbabwe) is predominantly a cattle country and is in general less suited to crop production" (1).

The major animals reared by most peasants are cattle, donkeys, goats, sheep, pigs and poultry (Appendix IIIa). There is also a growing number of peasant farmers, especially the co-operators and Master Farmers who are raising rabbits and breeding fish in ponds. Table 4.4 gives a general impression of livestock population in the peasant sector of Zimbabwe. It is clear that cattle and goats are the most widely reared animals in the peasant sector. This table also shows that, with the exception of the pigs, peasant livestock has been steadily increasing in numbers, and yet peasant grazing land has been increasingly contracting due to allocation for arable purposes.

Table 4.5 shows that the animals reared by most peasant farmers are poultry (96%), cattle (74%) and goats (58.). The importance of these animals used to transcend economic considerations. Traditionally cattle, goats and poultry played a very significant role in religious and spiritual ceremonies of the African people of Zimbabwe. To appreciate this one needs to understand Zimbabwean peasant lore, law and custom, which are, unfortunately, outside the purview of this research. Nevertheless, this is not to imply that these animals have no economic significance among the peasant community. Nor is it true to say, as some writers (de Wilde et al, 1967; Hughes, 1974; Weinrich, 1975; Yudelman, 1964) have tried to make us believe, that the African peasants regard cattle as status symbols with more socio-cultural than economic importance. Nothing

Table 4.4 National Census of Peasant-Owned Stock (1970-1975)

| Stock | 1970 | 1971 | 1972 | 1973 | 1974 | 1975 | |
|---|---|---|---|---|---|---|---|
| Cattle | 2,465,000 | 2,653,800 | 2,774,600 | 2,866,300 | 3,041,200 | 3,123,900 | +27% |
| Donkeys | 112,859 | 134,628 | 144,332 | 163,078 | 180,789 | 181,839 | +61% |
| Goats | 1,539,527 | 1,734,602 | 1,861,326 | 1,929,539 | 1,974,789 | 1,918,904 | -25 |
| Sheep | 428,586 | 437,285 | 450,236 | 491,056 | 517,750 | 536,125 | +25 |
| Pigs | 106,024 | 106,912 | 96,364 | 100,914 | 96,095 | 102,218 | -4 |

Source: The former Ministry of Internal Affairs

can be further from the truth; in fact, peasant cattle production is based on sound economic reasoning (Danckwerts, 1974).

Table 4.5 Livestock Production in Peasant Agriculture (N = 212)

| Animal | Production Response |
|---|---|
| Cattle | 74.1% (157) |
| Donkeys | 44.3% (94) |
| Goats | 58.0% (123) |
| Sheep | 34.9% (74) |
| Pigs | 22.6% (48) |
| Poultry | 96.2% (204) |
| Others (Rabbits, Fish, Bees, etc.) | 9.9% (21) |

Source: Research Data, 1980/81

Table 4.6 shows four main purposes, (draught power, cash, consumption, and religious or ceremonial purposes) for which livestock are reared in peasant farming. Only 2.2 per cent of the peasant cattle in this research were reared for religious or ceremonial purposes; 0.8 per cent of the goats, 0.5 per cent of the sheep, and a mere 0.08 per cent of the poultry were also raised for the same purpose. Nearly 74 per cent of the cattle and all the donkeys were reared for providing tractive power, most necessary in pulling farm implements for various purposes in the peasant farming cycle. Almost three-quarters of the cattle classified under religious or ceremonial category are bulls which were also used for draught power. Cattle are also used in the payment of bride-wealth (roora) among Zimbabwean peasants.

Table 4.6 Purpose for Raising Livestock in Peasant Farming (N = 212)

| Animal | Draught power | Cash | Consumption | Ceremonial |
|---|---|---|---|---|
| Cattle | 73.8% | 14.2% | 9.8% | 2.2% |
| Donkeys | 100 % | N/A | N/A | NIL |
| Goats | N/A | 51.3% | 47.9% | 0.8% |
| Sheep | N/A | 73.8% | 25.8% | 0.5% |
| Pigs | N/A | 84.5% | 15.5% | NIL |
| Poultry | N/A | 59.9% | 40.0% | 0.08% |

Source: Research Data, 1980/81

Unlike donkeys, cattle provide cash income (14%), meat (10%) and milk, mainly for home consumption. Goats, sheep, pigs and poultry provide no draught power. But 51 per cent of the goats, 74 per cent of the sheep, 60 per cent of the poultry and 84.5 per cent of the pigs are reared for cash purposes and the rest (48% of the goats, 26% of the sheep, 40% of the poultry and 15.5% of the pigs) are raised for family consumption, and hence provide a rich source of protein for peasant families. If these statistics are anything to go by it seems safe to conclude that most of the peasant livestock are raised for two major purposes, namely: the provision of draught power and as a source of cash incomes.

Livestock are also an invaluable source of organic manure, which is so essential in the preservation of soil fertility. Ninety per cent of the peasants interviewed reported that they also rear livestock for manure to maintain and/or improve soil fertility, and hence increase their lands' productive capacity. Of the 191 peasants who used animal manure in the 1980/81 season, 169 of them (that is, about 80% of the total sample) had obtained it from their own livestock. The remaining 22 (about 10%) had bought it from their neighbours.

It is imperative to understand and appreciate this dual role of peasant livestock if one wishes to effect sound peasant agricultural transformation.

## 2.04 Peasant Farming Units

This section attempts to analyse the structure, organisation and function of what is considered a typical Zimbabwean peasant farming unit. It seems necessary to understand the organisation and farming techniques of peasant agriculture if peasant agricultural transformation is to be successfully attempted.

Generally, peasant homesteads in Zimbabwe comprise a number of huts sited on a cleared area, which usually divides arable land from grazing lands. Some areas allocated for homestead sites are relatively large, sometimes as much as half a hectare, permitting the inhabitants of the site to cultivate crops. If stock are owned, a homestead has a cattle and donkey byre of its own, with possibly others for calves and small stock - goats and sheep. Each peasant farmer normally has an allocation of arable land[2], made up of one or more fields, which are seldom contiguous to the dwelling site and may be a considerable distance away from it. For example, 57 per cent of the farmers interviewed travel between 2 and 6.4 kilometres to their fields. As already mentioned above, the national average size of arable land per peasant family is 3.2 hectares, which is nearly 8 acres. Each family has the right to pasture livestock on communal grazing land, which tends to be on uncultivated ridges, wet lands and stream margins.

Techniques of agricultural production in the peasant sector have often been widely held to be responsible for the underdevelopment of peasant agriculture. These techniques have been castigated as traditional, primitive and continuous with farming methods used before the arrival of the white settlers (Jordan, 1973; Yudelman et al., 1964). It is indeed

true that peasant agricultural production applies less Western technology than does commercial farming. But it is not true to say that peasant farming methods are traditional and primitive. Traditional agriculture consisted of the system of shifting cultivation (Riddell, 1978) which is no longer possible in Zimbabwe today.

Techniques of peasant production are labour-intensive and non-mechanized, and the scale of production small, with a highly diversified cropping pattern. Family labour provides the principal component of the farm labour force. This is supplemented mainly by forms of co-operation which involve no monetary outlay. For instance, only 15 per cent of the peasants interviewed employed some agricultural labour on a more or less permanent basis[3], and this research also shows that nearly 99 per cent of the sample have participated in some form of agricultural co-operation at some point during their farming 'careers'. The national average peasant family labour-force size is estimated at between 5.5 persons and 7.2 persons. The average family size of the 212 peasant families interviewed is 5.7 persons capable of offering meaningful farm-labour. It must be noted that this family average size is subject to great seasonal fluctuations due to labour migration of the able-bodied persons. The major farm operations to be performed in peasant agriculture are manure preparation and application, ploughing and planting, weeding and cultivation, harvesting and threshing or shelling, winter ploughing and improvements. Some of the peasant farmers, especially the so-called 'emergent' ones, are also involved in compost making, fertilizer application (especially top dressing), pest controlling (spraying of pesticides) and the marketing of surplus produce. Livestock herding and milking of cows are additional, but integral, farm operations performed by the peasants. Calculations of the time spent on various farm operations by each of the six families selected for an in-depth case study, show that the peasant farmer's annual labout input[4] into crop production ranges

between 4,000 and 10,000 hours. Peasants spend very little money on capital investment and agricultural development. Though it is difficult to obtain accurate and reliable statistical information to support this assertion on a national level, there was, however, ample evidence from the peasants contacted that the majority of them spend as little as Z$ 10 on both the variable and overhead costs[5] in any one year. Of the 212 farmers interviewed nearly one-quarter[6] of them spent between Z$ 1.00 and Z$ 20.00 on the necessary agricultural inputs and overheads.

The second characteristic typical of the production techniques of Zimbabwean peasant agriculture is the widespread use of relatively simple implements. The commonest farm implements used in peasant agriculture are the single furrow plough, the cultivator, and, sometimes, but not always, a scotch-cart. Certain progressive farmers, especially the members of the co-operatives and the Master Farmers, own and/or use single row planters, harrows, shellers, sprayers and wheelbarrows. Table 4.7 gives a breakdown of the ownership of farm implements among the 212 peasants dealt with. It is evident from this table that about 99 per cent of the peasants own ploughs, 72 per cent own cultivators and 51 per cent own scotch carts. But less than half of the peasants interviewed own planters, harrows, wheel-barrows, shellers, sprayers and other season-time-saving implements which are taken for granted on commercial farms. The rest

> "either cannot afford them, or their lands are too small to justify the capital outlay".
> (Plowes, 1976)(2).

This is generally representative of the national position in the peasant sector.

Table 4.7 Ownership of Farm Implements in Peasant Farming (N = 212)

| Implement | Ownership Percentage |
|---|---|
| Single furrow plough | 98.6% (209) |
| Cultivator | 72.2% (153) |
| Single row planter | 43.4% (92) |
| Harrow | 42.0% (89) |
| Scotch cart | 51.4% (109) |
| Wheelbarrow | 34.0% (72) |
| Shellers (maize) | 31.6% (67) |
| Shellers (groundnuts) | 24.1% (51) |
| Sprayers | 16.5% (35) |

Source: Research Date, 1980/81

All these implements are animal-drawn. Normally, oxen are the draught animals employed. Donkeys are also used for animal traction, especially in drawing two-wheeled carts, and sometimes in ploughing and cultivating. But their tractive power is considered of an inferior quality - only one-third of oxen. It seems from all evidence that cattle must remain the prime source of draught power to the peasant farmer, at least for the foreseeable future. Yet all the information available at both the national and provincial levels shows that the draught power available to the peasant farmers is quite inadequate to plough the fields in time for early planting. Information from the former Ministry of Internal Affairs in Table 4.8 shows that in 1977 each of the then 640,000 peasant cultivators owned, on average, 4.6 head of cattle, and only 1.1 oxen. A minimum of two oxen are required to form a span for pulling most ox-drawn implements. On the basis of these statistics, therefore, it means that no peasant farmer was able to make a span of oxen[7]. With the paucity of grass in the pastures during the winter months, oxen are generally in poor condition to work effectively before the

onset of the November rains. In a survey carried out in Masvingo Province in 1977, the details of which are shown in Table 4.9, it was found that at least 44 per cent of the Communal Lands families were totally dependent on their neighbours and/or relatives for draught requirements. A fairly high proportion of a further 39.6 per cent, who owned between 1 and 10 head, also experienced some difficulty in meeting their draught needs. It seems obvious, therefore, that a good number of the Zimbabwean peasant families can only commence preparing their lands after their 'richer' friends or relatives have completed sowing their own crops. This delay in planting has serious effects on peasant yields.

Table 4.8 Communal Cultivators and Cattle Ownership, 1977.

| Province | Peasant Cultivators | Total Livestock Population | Cattle per Farmer | Total No. of Oxen | Oxen per Farmer |
|---|---|---|---|---|---|
| Manicaland | 121,000 | 443,000 | 3.7 | 126,000 | 1.0 |
| Mashonaland | 146,000 | 591,000 | 4.0 | 178,000 | 1.2 |
| Matabeleland | 95,000 | 801,000 | 8.4 | 117,000 | 1.2 |
| Midlands | 124,000 | 548,000 | 4.4 | 143,000 | 1.2 |
| Masvingo | 154,000 | 546,200 | 3.5 | 109,000 | 0.7 |
| Total | 640,000 | 2,929,200 | 4.6 | 673,000 | 1.1 |

Source: Ministry of Internal Affairs

Table 4.9 Cattle Ownership Distribution in Masvingo Province, 1977.

| Number of Cattle per Family | Percentage Householders |
|---|---|
| Nil | 44.0% |
| 1-10 | 39.6% |
| 11-15 | 9.2% |
| 16-20 | 3.0% |
| over 20 | 4.2% |

Source: Ministry of Agriculture, 1977.

As already shown above (Table 4.5), the findings of this research among a sample of 212 farmers show that 74 per cent of them reared some cattle and only 44 per cent owned donkeys. It seems relevant to mention that of the 157 cattle-owning farmers only 11 per cent owned more than 10 head of cattle, nearly 36 per cent owned between 6 and 10 head, and about 27 per cent owned between 1 and 5 head. The findings of this research further show that nearly 74 per cent of the sample's cattle are used to provide tractive power. This gives a statistical average of 4.2 head per farmer, which seems theoretically satisfactory since a minimum of only two oxen or cows are required to form a span. Unfortunately, this is not so in reality because ownership of cattle is not evenly distributed among all the peasants. The truth is that there is a critical shortage of draught power in peasant farming. Is mechanisation - that is, the use of motorized mechanical power, such as tractors and harvesters - the only solution to this problem of the shortage of tractive power?

Judging by evidence of the popularity of the tractors used by the Government to help the peasants who had lost most of their draught animals during the liberation war, it appears that the peasant farmers will readily mechanize. But a number of teething problems, which fall outside the purview of this chapter, must be solved before one contemplates the practical viability of sophisticated mechanisation in the peasant sector. For example, individual acquisition of a tractor or a harvester lies beyond the cash or credit potential of most of the peasants; secondly, servicing, spare parts and technical education facilities are almost non-existent in Communal Lands; thirdly, the majority of peasant operators are usually lacking in basic mechanical knowledge; and finally, the growing acute shortage of fuel supply and its rocketing costs will undoubtedly make mechanisation a non-starter for the time being. Possibly the only solution to the shortage of farm implements and the inadequate supply of draught

power in the peasant sector lies in peasant agricultural co-operation, which enables, as will be shown below, the farmers to share and use collectively a few implements and the draught power available to a sizeable proportion of the peasant farmers.

The techniques of the Zimbabwean peasant agriculture are also characterized by the small-scale nature of its production. To understand this phenomenon it is important to examine the cropping patterns of peasant agriculture.

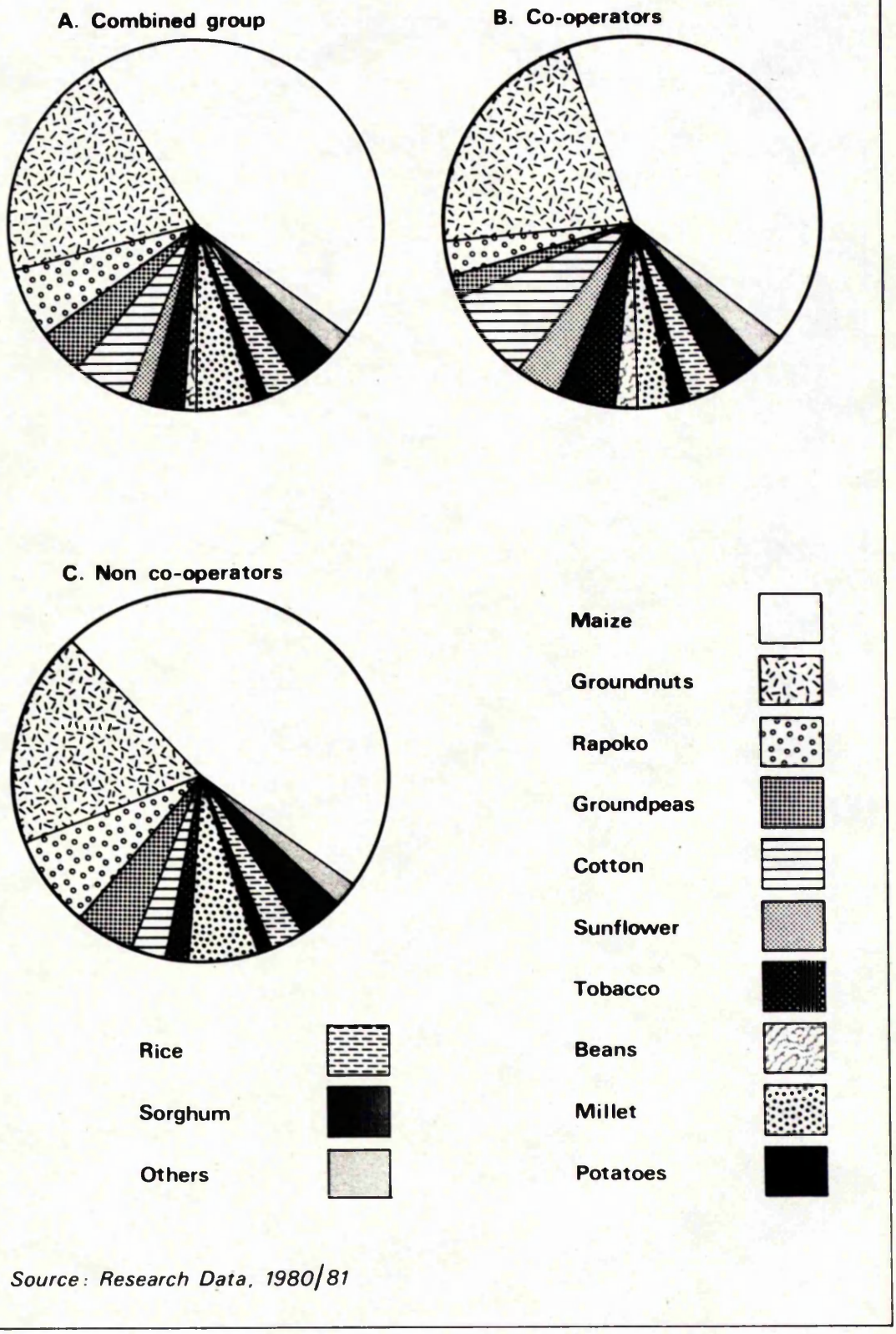
## 2.05 Peasant Cropping Patterns

The respondents (85%) to the research questions on the size of peasant land gave their answers in acres. To maintain the originality of evidence this section will, therefore, treat that information in acres.

According to those findings, 117 (55.2%) of the 212 peasants used in the sample, tilled between 4 and 6 acres. Taking this acreage as the common standard size of the majority of peasant farmers in the three provinces chosen for the research, this thesis will try to show the proportions of the main crops grown, the planting patterns, the amount and sequence of crop rotation, where practised, and the annual cropping frequencies.

Table 4.3 above gives a comprehensive list of the major crops grown by the Zimbabwean peasant farmers. Maize, groundnuts, rapoko, sweet potatoes and groundpeas seem to be the most popular peasant crops. All the five crops are produced for family consumption, and all but groundpeas are also very important cash crops. The popularity of groundpeas lies in the fact that, like groundnuts, it is regarded as a woman's crop. Hence, every woman in peasant agriculture has her own groundpeas and groundnuts plots (tsevu), however small it may be. These 'tsevu' are re-

PEASANT CROPPING PATTERNS IN COMMUNAL LANDS ( N=40 )




*Source: Research Data, 1980/81*

Fig. 4.1

garded by all the 38 women farmers interviewed as an important possession of a woman in the peasant sector.

Detailed analysis of the responses from 40 of the 212 peasants interviewed - 20 co-operators and 20 non-co-operators - shows that over 60 per cent of the peasant crop land is devoted to the production of maize and groundnuts, making these products by far the most popular crops in peasant farming. It is also interesting to note, in Figure 4.1 that co-operative farmers tend to devote more land to cash cropping than nonco-operators do. For example, the three purely cash crops - cotton, sunflowers and tobacco - occupy a good 17 per cent of the co-operators' land (Figure 4.1B), while the nonco-operators produce no sunflowers at all, and what little cotton and tobacco they grow take up only 5 per cent of their land (Figure 4.1C). It must be mentioned that these statistics, especially those which refer to horticultural production, do not take into account annual multiple cropping which is often practised by progressive peasant farmers. It must also be observed that most of the millet and sorghum grown are in the drier Masvingo Province, while most of the cotton is produced in Mashonaland East and Mashonaland West Provinces.

In traditional agriculture peasants used to broadcast nearly all their crops. But today in Zimbabwe the planting of crops, especially maize and groundnuts, in rows is increasingly becoming very popular. There is also a growing number of peasant cultivators who plant their maize, tobacco, sorghum and sunflowers in chequered patterns. But the broadcasting method is still one of the commonest practices in the planting of a good number of peasant crops. Table 4.10 gives the details of the research findings on the frequencies and popularity of crop planting patterns. This table shows that all the major crops (Table 4.3) grown by Zimbabwean peasants are planted in rows, though with varying degrees of frequency. Eight-seven per cent of the sample of this research plant their maize in rows, and nearly

Table 4.10 Planting Patterns in Peasant Agriculture (N = 212)

| Crops | % Rows | % Broadcast | % Combination | % Chequered | % All Patterns |
|---|---|---|---|---|---|
| Beans/cowpeas | 25.5% | 10.4% | 6.1% | 2.0% | 1.4% |
| Cotton | 31.6% | 5.2% | 1.9% | 0 % | 0 % |
| Groundnuts | 63.2% | 35.8% | 5.7% | 0.9% | 0.6% |
| Groundpeas | 8.5% | 37.3% | 1.4% | 0 % | 0 % |
| Maize | 86.8% | 12.7% | 6.1% | 16.0% | 4.7% |
| Millet | 14.6% | 20.3% | 3.3% | 0 % | 0 % |
| Potatoes (sweet) | 42.0% | 7.1% | 2.8% | 0 % | 0 % |
| Rapoko | 17.0% | 34.0% | 2.4% | 0 % | 0 % |
| Rice | 13.2% | 21.7% | 0.9% | 0 % | 0 % |
| Sorghum | 14.6% | 20.8% | 3.8% | 6.6% | 1.9% |
| Sunflowers | 11.3% | 7.5% | 0 % | 6.1% | 0 % |
| Tobacco | 10.8% | 0 % | 0 % | 27.8% | 0 % |
| Others | 1.4% | 0 % | 0 % | 34.0% | 0 % |

Source: Research Data, 1980/81

13 per cent of these farmers still broadcast their maize. But it must be noted that 13 of these farmers (6% of the total sample) also plant their crop in rows. Only four crops - beans, groundnuts, maize and sorghum - are grown under all the three major cropping patterns.

The third feature characteristic of peasant cropping patterns in Zimbabwe is intercropping[8], which is also referred to as interplanting or mixed cropping (Jackson, 1977; Webster and Wilson, 1966). Sixty-six per cent of the total peasant sample practise intercropping for various reasons (to be dealt with elsewhere in this thesis). Eighty-three per cent of the agricultural extension assistants interviewed reported the widespread practice of intercropping among their peasant clients in the ten districts chosen for this research. From the data collected, maize is by far the commonest crop interplanted with nearly every one of the other important peasant crops. About 5 per cent of the peasant farmers interviewed intercropped maize with groundnuts, nearly 15 per cent of them interplanted it with rapoko, 13 per cent with rice, another 5 per cent with groundpeas and slightly over 10 per cent intercropped it with the rest of the other peasant crops. Research information also shows that 97 per cent (136) of the 140 peasants who practise intercropping had interplanted cowpeas, cucurbits[9] and sweet sorghum (sweet cane) with each of maize, groundnuts, groundpeas, rapoko, rice, millet and sorghum in the 1980/81 season. It must, however, be noted that 69 per cent of the 160 co-operators reported a decreasing tendency to intercrop. This point was confirmed by all the 30 agricultural extension assistants interviewed. The major reason given by 107 peasants for this declining tendency was discouragement by the co-operative movement. 'Judges' for the agricultural green show competitions (Appendix XIVa), which the author attended extensively, considered intercropping to be a bad farming practice. When asked why they discouraged intercropping they said that it hinders crop rotation; it prevents the use of herbicides; and it promotes crop competition for soil nutrients, light and water.

As already alluded to in the last paragraph, crop rotation is highly encouraged by every agency - both public and private - which purports to develop peasant agriculture in Zimbabwe. All the twelve organisations, both parastatal and private, contacted and/or interviewed regard crop rotation as vital in the transformation of peasant agriculture; all the agricultural extension assistants interviewed recommended that ideally a farmer needs at least four acres (1.6 ha.) in order to perform a good four-year crop rotation. Fifteen per cent of the farmers in the sample have less than four acres (Table 4.2). Although such small land holdings impose some constraints on the peasants in performing ideal crop rotation, the majority (nearly 80% of the total sample) practise crop rotation.

Crop rotation in Zimbabwe follows a four-year cycle. Figure 4.2 shows a simplified diagram for a standard four-year crop rotation sequence. This model is based on a number of observations made during field work in the three provinces - Mashonaland East, Mashonaland West and Masvingo - visited. As the crops grown were different in the different regions, villages and even fields visited, allowance has been made in this model for alternative crop combinations and sequences, especially in plots C and D of year one. As already shown, maize is the most popular and most widely grown crop among the peasants of Zimbabwe. In the standard four-year rotational cycle maize is grown in two different plots, one with cattle or compost manure or, for those who can afford it, with chemical fertilizer and the other without manure. The latter was originally meant to act as an experimental control, showing the peasants the importance of using manure in improving maize production. However, 77 per cent of the agricultural extension assistants interviewed indicated that it is not important to insist on this four-year crop rotation cycle. They said that a good number of their farmers practise a modified three-year rotation pattern, comprising maize (with, or sometimes without manure), millet/rapoko/sorghum, and one of the legumes (groundnuts, or beans, or groundpeas). It must, nevertheless,

Figure 4.2 A Model of Crop Rotation Patterns in Communal Lands.

| Field | Year 1 | Year 2 | Year 3 | Year 4 |
|---|---|---|---|---|
| A | Maize I | Maize II | Millet or Rapoko or Sorghum | Legume |
| B | Maize II | Millet or Rapoko or Sorghum | Legume | Maize I |
| C | Millet or Rapoko or Sorghum | Legume | Maize I | Maize II |
| D | Legume (Ground-nuts/Groundpeas) | Maize I | Maize II | Millet or Rapoko or Sorghum |

Key: Maize I = Maize with manure; Maize II = Maize without manure

Source: Research Data, 1980/81

be stated that the most important sequence, in both models, is that maize, with manure, must always follow the legume. Rice is left out of this model because it tends to be grown under mono-cropping culture due to its high degree of water affinity. Cotton and tobacco are also left out because the majority of typical peasant farmers, on a national level, do not grow them. However, it may be relevant to mention that cotton can do very well when grown after any of the above crops, and tobacco can do best after groundnuts or groundpeas.

Each of the 169 farmers who reported that they were practising crop rotation was asked if it was necessary to grow crops in rotation. All the 169 had some reason or reasons for doing it. There were four major reasons given by the peasants: 148 farmers cited the maintenance of soil fertility by growing nitrogen-fixing crops as one of the major reasons for crop-rotation; 131 were doing it to check the building-up of pests and crop diseases; 105 were doing it to reduce weed infestation; and 79 were minimizing the risk of soil erosion by planting crops with different rooting habits. It seems clear, therefore, that peasants are aware of the importance of crop rotation.

One aspect of peasant agricultural cropping systems which needs attention in this section is multiple cropping. Multiple cropping is defined, for the purpose of this thesis, as the practice of growing more than one food, feed, or industrial crop on the same piece of land in a year. Multiple cropping makes possible both an increase in area cultivated per year as well as an increase in total yield per unit of area per year. Yet this dimension is almost ignored in all considerations for improving peasant agriculture.

Nationally, there is no evidence for meaningful multiple cropping in typical peasant agriculture. However, this research found that there was an increasing awareness of the importance of multiple cropping, especially

among those farmers in the wetter areas in parts of the Chegutu, Murewa, Mutoko, Wedza and the Masvingo districts. For instance, 23 of the 212 farmers interviewed, that is nearly 11 per cent, multiple cropped some winter wheat, mainly in rice/vleis (matoro) and in gardens under some form of watering, since irrigation is nearly non-existent in Communal Lands[10]. Results have been extremely encouraging. Nearly 55 per cent (41 farmers) of the 75 horticultural producers identified in the research practise extensive multiple cropping, sometimes producing three crops from the same land per year. It must, however, be recognized that the greatest constraint in the expansion of multiple cropping is lack of irrigation facilities in Communal Lands.

It seems reasonable to conclude from the foregoing evidence that the production of peasant agriculture is highly diversified. Such a high diversification in cropping patterns and production techniques could never have been easily achieved if the scale of peasant production were large.

## 3. PRODUCTIVITY OF PEASANT AGRICULTURE

### 3.01 Peasant Aims and Aspirations

The aims of all Zimbabwean peasant farmers are to produce sufficient crops and livestock to support their families and, contrary to certain views widely held by some Rhodesian officials (Yudelman, 1964), most peasants (98% of this research sample) also strongly aspire to produce a surplus to sell for cash. The question to be asked, therefore, is: are the present peasant farming systems and patterns of production and cropping, as discussed in section two above, ideal for the realisation of these aims and aspirations? In order to appraise the effectiveness of these systems it is necessary to look at the productivity of peasant agriculture.

3.02 Its Contribution to the National Economy.

Peasant agricultural productivity is normally measured in terms of its contribution to the value of the national agricultural product which itself is usually calculated from estimated production data. For example, Table 4.11 shows the combined value of crop and livestock production from the Communal Lands. According to this criterion or method, peasant agriculture is said to be contributing only one-fifth to the value of the national agricultural product (Thomas et al, 1980).

All the agricultural extension assistants interviewed are agreed that peasant agriculture is playing an important role in feeding the rural population. But 83 per cent of these assistants maintain that the proportional contribution of typical peasant farming to the national economy is rapidly declining. This declining contribution seems to have a long history. For example, it is noted that:

> "Whereas in 1954 African agricultural output was valued to be worth 45 per cent of European agricultural production, in 1969 it was valued at only 37% of the European figure, and whereas in 1954 African peasants sold 30 per cent of their produce, in 1969 they sold only 19 per cent"(3)[11].

It is further observed that:

> "real average income of rural households has fallen by about 40% from 1948 to 1970." (4)
> (R. C. Riddell, 1978)

It seems clear that peasant agricultural production is not doing well.

However, in gross terms, the volume and value of peasant production has increased over the past two decades, 1960 to 1980. Gross value rose from Z$24 million in 1964 to Z$109 million in 1976, an increase of 60 per cent at constant 1964 prices.

While all this information is important, it does not, unfortunately, tell us much about the productive capacity and potential of peasant agriculture. For instance, the total sales shown in Table 4.11 reflect data estimated on the basis of crops and livestock sold through official

Table 4.11 Total Estimated Output and Sales of Agricultural Produce from Communal Lands.

| Source | Total Value | | | Total Sales | | |
|---|---|---|---|---|---|---|
| | Total (Z$) | Per Family | Per Head | Total (Z$) | Per Family | Per Head |
| Crops | 96 | $142 | $26 | 24 | $36 | $6.5 |
| Livestock | 41 | $ 61 | $11 | 16 | $23 | $4.2 |
| Total | Z$137M | $203 | $37 | Z$40M | $59 | $10.7 |

Source: Thomas et al. (1980), Whitsun Foundation (Table 10)

marketing channels, that is, the Grain Marketing Board and its agents, the Cold Storage Commission, and the Internal Affairs Cattle Sale Pens (Figure 5.2), where, according to Johnson (1963), the peasants receive only 49.6 per cent of the value of their produce after heavy deductions of handling charges, transport costs, government levies and, in the case of cattle, commission for the auctioneer. Consequently, only about

> "5 per cent of all surplus crops and livestock in the peasant sector are sold through these government recognised channels" (A. K. H. Weinrich, 1975) (5).

Nothing, therefore, is known through the official records about the 95 per cent of peasant production surplus. Agricultural extension assistants report that over 80 per cent of their farmers prefer to sell their surplus crops and livestock to non-government controlled markets, such as Boarding Schools run by Christian missions, and to fellow Africans in Communal Lands, where they avoid paying government levies and auctioneering commission.

All the growth in production experienced during the last two decades was not brought about by an intensive use of the land, but has been a function of an increased area of cultivation of 27 per cent, which accounted for 81 per cent of growth in crop production. Land and labour productivities declined by 7 per cent and 4 per cent respectively, compared with 37 per cent and 46 per cent increases in commercial agriculture (Hume, 1977).

If it is insufficient to understand the productivity of peasant agriculture through these official statistics it seems necessary, therefore, to use different data. Analysis of agricultural production figures obtained from individual peasant cultivators appears to provide such vital data.

### 3.03 Productivity According to Primary Data

Table 4.12 shows peasant land productivity for a selected number of the commonest peasant crops in a year of average rainfall[12]. Data in column A were obtained from 212 peasants, and data in column B

were obtained from thirty agricultural extension assistants working in different parts of Mashonaland East, Mashonaland West and Masvingo Provinces. About 75 per cent of the peasants interviewed are members of co-operatives, and they tend to produce, as will be shown elsewhere in this thesis, higher yields per acre than ordinary peasants. Peasants' average yields, in column A, are therefore higher than those in column B, based on data provided by extension assistants who drew them from a source which consists of more ordinary peasant farmers than co-operators. From information in this table, especially column B, whose statistics are more reflective of typical peasant agriculture, it is clear that peasant land productivity is very low.

Table 4.12 Peasant Land Crop Productivity

| Selected Crop | Crop yields per Hectare in Bags | |
|---|---|---|
| | A. Peasants' Data (N = 212) | B.Extension Assistants' Data (N = 30) |
| Groundnuts (shelled) | 25.5 | 11.0 |
| Groundpeas (shelled) | 12.0 | 6.7 |
| Maize | 53.0 | 13.0 |
| Millet | 16.8 | 8.5 |
| Rapoko | 18.8 | 12.5 |
| Rice | 14.0 | 10.0 |
| Sorghum | 20.0 | 13.0 |

Source: Research Data, 1980/81

Research evidence has also shown that the average cropping hectarage for maize and groundnuts, the commonest peasant crops, is 1.3 and 0.6 respectively. This means that, with average yields of 13 bags of maize and 11 bags of groundnuts per hectare (Table 4.12) the annual total maize and groundnut production per family is some 17 bags and 7 bags respectively, which is hardly sufficient for peasant family requirements - domestic

consumption and surplus for cash.

This decline in peasant agricultural productivity is not only confined to crop production but also to animal husbandry. In the grazing areas (estimated at three-quarters of the Communal Lands) the deterioration due to over-stocking and consequent overgrazing has been both rapid and extremely serious. Before the escalation of the liberation war in the early 70s, of the 6.2 million national herd nearly 3 million (Table 4.8) belonged to Communal Lands farmers. In 1974 it was estimated that approximately 120,000 cattle perished in these areas due to starvation, malnutrition and disease. In 1977 alone, during the peak of the war, it is estimated that about 500,000 cattle died, and by early 1980, at the end of the war, experts estimate that over a million herd of peasant livestock had perished due to the combined effects of the war and the seriously overstocked, heavily overgrazed and drastically reduced grazing land. This represents a loss of some Z$20-30 million to the national economy.

Information from the interviews of both the peasant farmers and the agricultural extension assistants shows that a peasant cow calves only once in every two to three years. And it is reported that such a birth rate gives an average annual natural increase of peasant cattle of between 3 and 5 per cent. But all the extension assistants interviewed reported that with improved grazing management and new livestock husbandry techniques a peasant cow can calve every year at least.

All the evidence available to this research, from both primary and secondary sources, reveal that peasant agricultural productivity is far from satisfactory. Eighty-three per cent of the agricultural extension assistants interviewed believe that productivity per unit factor of production in peasant cropping is even declining. Eighty-four per cent of the peasants interviewed stated that their crop productivity was unsatisfactory, and 91 per cent agreed that their livestock husbandry was declining.

These observations are confirmed by the senior Agricultural Promoter and Lecturer of the Catholic Association Agricultural Co-operatives when he said:

> "For the past twenty years or so there has been a steady decline in peasant yields per acre. But in our (co-operative) groups the trend has been successfully halted, and, in many cases, even reversed" (Silveira House, Harare, 9 March, 1981)(6).

Both the peasants and extension assistants interviewed concur that agricultural production is drastically reduced in drought years which, in Zimbabwe, are, sadly, estimated to occur once in every four years. It is reported that maize yields per acre can be reduced to as low as three-fifths, or even half, of its normal yield[13]. One can easily see that in a drought year, as the 1981/82 season has been, most of the peasants, especially those in the drier provinces of Matabeleland and Masvingo (Figure 3.8), suffer serious losses in their agricultural production. In 1971 the then Secretary for Internal Affairs, which used to be responsible for peasant agriculture, stated that:

> "two-thirds of the tribal population were incapable of feeding themselves in a drought year and would have to be supported by famine relief schemes." (7).

It has also been estimated in one Communal Land that in a drought year 37 per cent of the families fall into the 'below subsistence' category in terms of nutritional stress (based on minimum dietary standards) and 38 per cent in the subsistence category, with only 25 per cent above that.[14]

It seems reasonable to conclude, therefore, that peasant agricultural productivity is seriously deteriorating. But it cannot equally be said that their productivity is incapable of improvement. This is also noted by Hume (1977), a Zimbabwean international economist, formerly with the World Bank, when he said that:

> "While it is true that their (peasants) productivity levels are low, it is not true that there is no growth potential" (8).

Most Government officials - development planners and extension staff - and peasants themselves seem to have recognized this problem. Many inquiries into the causes for this low productivity and a number of efforts, both genuine and cosmetic, to improve peasant production, have been undertaken throughout the past five decades. Some of the officials, especially those from the then Ministry of Internal Affairs, believe that the main causes for the deterioration in peasant agricultural production were the farmers' backward farming practices, soil-depleting techniques of production and primitive cropping patterns[15]. The strategies devised and adopted were therefore geared to make peasant farmers adopt technical innovations based on Western agricultural technology, which the protagonists claimed was the only solution to the transformation of peasant agriculture. But were the officials correct in their diagnosis of the causes for the peasant problems? If they were, were the development strategies adopted successful, or are they succeeding, or will they succeed in improving peasant production? The answers to these questions are the task of the next chapter.

## CHAPTER 4: FOOTNOTES AND REFERENCES

4.1 Beans and cowpeas tend to be regarded as one and the same crop in peasant agriculture in Zimbabwe.

4.2 In recent years growing shortages of arable land have resulted in some homesteads in certain areas not having their own arable allocations.

4.3 Nevertheless some 54% hire some seasonal labour force.

4.4 The method and significance of calculating the labout input of the six case studies (three co-operators and three nonco-operators) will be shown in chapter nine.

4.5 Variable costs refer to those items such as fertilizer, seed and chemicals which are directly related to production, while overhead expenses include items applicable to the farm in general, such as farm maintenance, rates and taxes and vehicle expenses.

4.6 The majority of them (88.5%, i.e. 46 farmers) are, as will be shown in chapter nine, nonco-operators.

4.7 Peasants also use cows, bulls and, as already mentioned, donkeys for draught purposes.

4.8 Intercropping refers to the planting of two or more crops on a given piece of land at the same time. It is also referred to as mixed cropping and/or interplanting.

4.9 Cucurbits is a generic term for cattle melons, water melons, gourds, pumpkins, wild cucumbers, etc.

4.10 Irrigation in Communal Lands dates back to 1931 and exists as a special type of African agricultural settlement under government controlled Irrigation Schemes.

4.11 This is quoted from the Sunday Mail, 14 March, 1971.

4.12 A year of average rainfall is used to refer to those years in which rainfall is close to the statistical local average for an area (see Fig. 3.5, and Table 3.1).

4.13 Weinrich, A. K. H. 1975: African Farmers in Rhodesia, p. 101.

4.14 Theisen, R. 1975: 'The Exploding Population Problem in Tribal Trust Lands of Rhodesia' (Tribal Areas of Rhodesia Research Foundation, Salisbury), pp. 3-4 (mimeo).

4.15 Yudelman, M. 1964: Africans on the Land, pp. 85-90.

### SOURCES OF QUOTATIONS

4.1 Riddell, R. C. 1978: The Land Problem in Rhodesia, pp. 27-28.

4.2 Plowes, D. C. H. 1976: "Technical Problems of Tribal Crop Production" in Rhodesia Science News, 10 (10), October, 1976.

4.3 Weinrich, A. K. H. 1975: African Farmers in Rhodesia, p. 42.

4.4 Riddell, R. C., op. cit., p. 10.

4.5 Weinrich, A. K. H., op. cit., p. 102.

4.6 Mukonyora, R. B. 9 March, 1981: 'Unstructured Interview' (Silveira House, Harare).

4.7 The Secretary for Internal Affairs' Annual Report (1971), p. 18.

4.8 Reported in Michael Knipe in The Times, 20 May, 1977, p. 14.

# CHAPTER 5

## THE MAJOR ZIMBABWEAN FARMING PROBLEMS AND GOVERNMENT SOLUTIONS

### 1. INTRODUCTION

It has been already clearly demonstrated that the productivity of Zimbabwean peasant agriculture is very low. Chapter Five aims to investigate and analyse the main causes of the poor performance of the peasant sector. It will do this by examining the major problems besetting peasant agriculture. These problems will be considered separately between those that have been identified by successive Southern Rhodesian and Rhodesian Governments and those identified by the peasants themselves. The chapter will also analyse the major Government schemes and official peasant agricultural development programmes. It will assess their contribution towards improving the productivity of peasant agriculture.

### 2. PROBLEMS IDENTIFIED BY THE GOVERNMENT AND THEIR SOLUTIONS

#### 2.01 Lack of Basic Agricultural Skills

Southern Rhodesia administrators recognized as early as the 1920s that peasant agricultural productivity was low, and that many families could not be sustained by what they were producing; this, it was felt, was due partly to the peasants' ignorance of modern farming techniques. Some individual officials also claimed that laziness, superstition and lack of economic motivation among the peasant cultivators were responsible for the low productivity of peasant agriculture. Some examples from parliamentary literature and governmental reports may help to illustrate the basis of pre-independence government philosophy, underlying peasant agricultural development strategies. In a parliamentary debate in 1960, where the general issue of African agricultural development was

being discussed, one speaker, reflecting government policy, claimed that:

> "The African in general has no desire to produce more than he needs for subsistence level. That is the experience, I think, of all of us .... who have lived here long enough .... /and I think we/ realise that /putting/ silver in his pocket .... is not the African's first aim and object. His first aim and object is to have enough food to eat and enough /home-made/ beer to drink: he is not prepared to put enough effort into producing more" /2880/(1).

This thinking, which dominated Southern Rhodesian Government policy on peasant development throughout the pre-independence period seems to derive from Boeke's (1953) theory of cultural dualism[1], which postulates that peasants'patterns of behaviour, attitudes and value systems are the antithesis of the capitalistic ethic. Peasant producers are not materialistic; incentives such as higher prices to increase production have little effect; the whole of the indigenous population is not interested in producing for profit but is concerned only with satisfying a limited range of wants that is almost static in character. It goes on to conclude that because of the peasants' non-acquisitive economic mentality, it is difficult if not impossible for indigenous producers to adapt to Western technology. While this theory might have been valid of certain attitudes and activities of peasant farmers half a century ago, especially before the introduction of agricultural stabilisation and extension services, the same cannot be true of the period after 1930.

Yet this "blame the peasants" theme persisted well into the 1970s. For instance, Jordan (1974), then Victoria provincial agricultural officer, states that:

> "The three main factors which restrict development and the improvement of management in a peasant farming area are ignorance, isolation and poor health. Superstition and prejudice are subsidiary restrictions which stem from these main ones". (2)

It seems fair to admit that peasant farming methods and practices in the 1920s and possibly early 1930s were backward, and that the majority of

peasants were ignorant of modern farming techniques. But five retired agricultural demonstrators and 90 per cent of the current agricultural extension assistants, interviewed during this research, maintained that ignorance and backward techniques of production were not the major problems besetting peasant farming because, as they argued, even those peasant farmers who had been exposed to extensive training in basic agricultural skills and qualified to receive Master Farmers' Certificates[2] reaped very low yields, and their overall farming performance shows no significant difference from that of their fellow farmers in Communal Lands. Official assertion that peasant laziness and superstition are obstacles to the development of peasant agriculture seem to run counter to evidence supporting the contrary. As will be shown later in this thesis, the seeming lack of economic motivation among Zimbabwean peasant farmers seems to be due more to the peasants' rational reaction against defective, statutory marketing and pricing institutions than to peasants' non-acquisitive economic mentality.

However, Government officials and Ministers insisted that the eradication of peasant ignorance and, with it, poor farming practices was the only answer to the transformation of peasant agriculture and the conservation of natural resources. In the 1920s the then Government policy makers were also keen to improve peasant agricultural productivity in order to prevent African agitation for more land in the Reserves[3] into which they had been herded; and to maintain soil fertility and halt an escalation in soil erosion, which was then, as now, seriously threatening the over-crowded African Reserves. A number of decisions were therefore taken ostensibly to 'improve' peasant agriculture; several programmes were subsequently devised to implement these decisions. Space does not, unfortunately, permit this thesis to recount all the official programmes and efforts made towards the improvement of peasant farming. But perhaps one which is most important, relevant and effective in the eradication of

traditional farming practices and ignorance is the agricultural extension service scheme started in 1926.

## 2.02 Agricultural Extension Services

In October, 1926 the Government appointed Emery D. Alvord, an American Methodist missionary, as Agriculturalist for the Instruction of Natives. This was the birth of the currently celebrated agricultural extension service, which started in 1927 with only eleven agricultural demonstrators (as they were then called), but has since expanded to an agricultural extension staff of 1,413 field assistants.[4] The aim of this scheme was not precisely defined at its inception. However, the following are generally accepted as the major aims of Alvord's agricultural extension service:

(a) to discourage and eventually stop the practice of shifting cultivation, and replace it with a system of sedentary farming;

(b) to promote the adoption and use of improved methods of cultivation, and thus increase yields;

(c) to promote a sense of soil conservation, and the maintenance of its fertility for perpetuity; and later

(d) to train Master Farmers (Appendix VI).

Each agricultural demonstrator had to undergo, for three years, a thorough training in modern agricultural techniques, with special emphasis on agricultural demonstration work, on simple soil surveying techniques and conservation, on irrigation work, and on the importance of the centralisation of native reserves[5]. According to the then Government, the basic philosophy underlying the peasant agricultural extension services, was governed by two broad objectives. First, it was believed at a theoretical level that

> "There must be in the reserves ample opportunity for all the economic, social and political wants of the advancing and progressive natives to be filled. That,

> in a nutshell, is the secret of a successful native policy" (N. H. Wilson, 1923) (3).

Secondly, and on a more practical level, it was

> "intended to develop the native reserves so as to enable them to carry a larger population and so avoid, as far as possible the necessity for acquisition of more land for native occupation" (Chief Native Commissioner, 1932) (4).

From this evidence it seems obvious, therefore, that the Government's real intention with this scheme was not "to stimulate high production of staple cash crops"[6] by peasant farmers. But when Alvord deployed his trained demonstrators in certain reserves, particularly in parts of Goromonzi and Marondera districts, in Mashonaland East; in Shurugwi in the Midlands; and in Gutu and Masvingo districts of the Masvingo Province, this did begin to happen.

When qualified demonstrators or agricultural extension assistants (as they are now called) were sent in the field they were exhorted to win the confidence of peasant farmers in preparing small demonstration plots of 0.4 to 0.8 hectare per farmer. The demonstrator introduced and encouraged the farmers to adopt the use of improved techniques of production, stressing the virtues of crop rotation, mono-cropping and the maintenance of soil fertility through the application of livestock manure and compost. But the demonstrators' supervision of unlimited farmers' plots led to ineffective extension with resulting poor yields and damage to the image of the scheme. The extension approach was therefore modified to concentrate on a few selected potentially good farmers in the belief that their success would serve as an example to others who would emulate their methods. Ideally, a demonstrator was advised to concentrate on a total of sixteen official plotholders who, among them, might have between 60 and 80 demonstration plots. One of the first eleven demonstrators, working in Chihota Reserve, Marondera district, included among his first demonstration plot-holders, a poor peasant farmer who was tilling 12.8 hectares of

worn-out land. This man grew such outstanding crops under supervision on his 1.6 hectare demonstration plot that in 1932 a crowd of 2,300 peasant cultivators from areas as far afield as 160 kilometres gathered to observe his crops and to hear about his methods of farming. In 1934, during a green show field day held near his lands, Alvord and the then Chief Native Commissioner visited the farmer and honoured him as "an example to others" by presenting him with a "Master Farmers" certificate. This scheme was adopted for recognition of other leading plot-holders all over the country; an ornate badge was later added to the printed certificate. This was the birth of the Master Farmers Scheme, a scheme which led, three decades later, to the formation of the Masvingo Association of Master Farmers' Clubs (a topic which forms the subject of the seventh chapter of this thesis).

The success of the Master Farmers' Scheme encouraged peasant participation in agricultural extension services. Peasant adoption of modern production techniques and cash cropping, especially in the Gokwe and Kadoma districts (Weinrich, 1975), and increased crop yields, particularly in the Masvingo province (Palmer, 1977) are some of the outstanding achievements of the agricultural extension service. And yet, as will be shown later in this chapter, initially the scheme faced stiff opposition from the white commercial farmers who felt threatened by peasant competition, and from white industrialists who believed that the success of peasant agriculture would interrupt the flow of cheap labour. Despite this opposition, agricultural demonstration and extension work (plate 6) has continued to expand and has become one of the most vital strategies in the development of peasant agriculture.

### 2.03 Lack of Credit and Marketing Facilities

Notwithstanding all these extension efforts and the success they had in imparting knowledge to the peasant, it soon became evident to many Government officials that knowledge of better farming methods alone

was not sufficient to induce sustained peasant agricultural growth. The introduction of agricultural stabilisation among the peasants in the 1920s led to serious depletion of soil fertility because, first peasants were either ignorant of the need and techniques of restoring the necessary soil nutrients or were not bothered to care for one small plot when nearby were tracts of land lying un-utilized; and secondly, for those who were aware of the importance and techniques of maintaining soil fertility, they lacked the necessary resources. They needed money to buy fertilizers and hybrid seeds. They also needed the basic farm implements which had become so indispensable in sedentary agricultural practices. A number of officials in the Native Department recognized that peasant farmers needed some form of financial aid facilities for the purchase of these agricultural input items and marketing outlets for their surplus. For example, the Native Commissioner of the Charter district in the Midlands wrote in 1932 that "over-production (of cash crops) has proved a disadvantage rather than a blessing in recent years"[7] because there was no guarantee of finding a market for the peasant farmer's surplus. The Assistant Native Commissioner (1935) in the remote Shangani Reserve in Matebeleland, also declared that:

> "There is no doubt that the lack of markets in this Reserve gives the native no encouragement to better his methods or increase his crop" (6)

These views were also supported by Alvord in 1934 when he noted in his annual report to the Chief Native Commissioner that:

> "The greatest handicap to our efforts to introduce better methods of tillage among reserve Natives is the lack of marketing facilities" (7)

These reports led to the establishment of a statutory body - the African Development Fund - which was intended to provide some solutions to these problems.

## 2.04 The African Development Fund

The African Development Fund was established in 1948 as a multi-purpose institution, charged with the responsibility of promoting the production and marketing of African produce and livestock. This Fund got its income from three sources, namely: from government grants; from levies[8] of up to 15 per cent of the selling price of all African livestock and crops sold through government controlled marketing channels; and from miscellaneous income sources - dipping fees, dog tax and lease charges to rural African businessmen. The Fund has been used mostly for capital development in both the former Trust Lands and Purchase Lands in the construction of roads and dips, in water supplies and in soil conservation works. The construction of roads was considered important in facilitating the marketing of peasant produce and distribution of the necessary agricultural inputs; dips were very useful in controlling livestock (especially cattle) diseases; and soil conservation was intended to preserve soil fertility, thereby boosting peasant productivity. The Fund was also used to finance the implementation of the Native Land Husbandry Act of 1951, which was promulgated in February, 1952 "to provide for the control of the utilisation and allocation of land occupied by natives and to ensure its efficient use for agricultural purposes; to require natives to perform labour for conserving natural resources and for promoting good husbandry"[9]. The African Development Fund was the first governmental body to provide credit for the necessary inputs to dry-land peasant farmers in 1958. The loans were administered and disbursed by the Registrar of Co-operatives - which will be discussed in the next chapter. Table 5.1 gives an idea of the areas on which the Fund spent its money, and of the amount spent between 1956 and 1962. From this table it can be seen that nearly £10.3 million was spent directly or indirectly on the improvement of Communal and former Purchase Lands farming. While the impact of this Fund on the former Purchase Lands farming has been comparatively encouraging, its effects on

peasant agriculture has been minimal; its productivity continues to deteriorate. Certain commentators, especially former officials of the now defunct Ministry of Internal Affairs, continue to assert that peasant agricultural practices, techniques of production and primitive cropping patterns are the major cause of this deterioration and the failure of government efforts. But most peasants strongly disagree with these assertions and hold different explanations for the plight of their agriculture.

Table 5.1 Native Development Fund Expenditure - 1956-1962.

| Item | Expenditure (Pounds) |
|---|---|
| Water development | 3,449,038 |
| Roads and bridges | 2,515,276 |
| Conservation, survey and registration | 1,741,753 |
| Building: Land Development Officers' houses | 410,738 |
| Other buildings | 540,863 |
| Experimental Stations | 269,800 |
| Marketing | 1,087,432 |
| Dipping | 1,705,432 |
| Afforestration | 115,343 |
| General development | 1,962,725 |
| Staff: salaries, allowances and transport | 3,779,823 |
| Training facilities | 47,344 |
| Incidental expenses | 105,136 |
| Total expenditure | 17,731,082 |

Source: Report of the Secretary for Internal Affairs and Chief Native Commissioner for the year 1962, page 16.

## 3. PROBLEMS IDENTIFIED BY THE PEASANTS AND THE AGRICULTURAL EXTENSION ASSISTANTS

### 3.01 Peasants' Views

Almost all Zimbabwean peasant farmers interviewed and/or contacted maintain strongly that the main problems besetting their agriculture were either created by or result from the negligence of successive pre-independent governments. Each of the farmers included in the sample was requested to list as many causes for the poor performance of his/her farming as he/she could identify. Table 5.2 presents a list of ten such causes which the peasants hold responsible for the deterioration of their farming productivity. Column two of this table demonstrates the frequencies each of these causes is cited as one of the problems retarding the development of peasant agriculture.

The problem of poor and exhausted soils is cited by about 87 per cent of the peasant interviewees. Eighty-three per cent felt that peasant fields are too small and too fragmented for an economically viable farming enterprise. The problem of contracting over-stocked and over-grazed pastures is cited by 82 per cent of the farmers as one of the disturbing constraints hindering the progress of peasant livestock production. Lack of capital (81%), vagaries of the weather (74%), poor draught power (55%), poor communication and transport services (48%), unreliable labour force (45%) and inefficient and poor farm implements (38%) are, in that order of frequency, some of the teething problems cited by many farmers. It is interesting to note that 68 per cent of the farmers interviewed admit that poor peasant farming techniques and inefficient farm management are responsible for the declining productivity of their agriculture.

Table 5.2: The Major Problems Besetting Peasant Agriculture

| Problem Identified ....by ..... | Farmers | Assistants |
|---|---|---|
| 1. Poor, exhausted, leached and eroded soils | 87%(185) | 83%(25) |
| 2. Too small and too fragmented fields | 83%(176) | 67%(20) |
| 3. Contracting, overstocked and overgrazed pastures | 82%(173) | 83%(25) |
| 4. Lack of capital and credit facilities | 81%(171) | 80%(24) |
| 5. Constant droughts | 74%(156) | 77%(21) |
| 6. Poor techniques and poor farm management | 68%(144) | 70%(21) |
| 7. Lack of reliable draught power | 55%(117) | 43%(13) |
| 8. Poor communications and transport | 48%(102) | 40%(12) |
| 9. Inefficient and unreliable labour force | 45% (95) | 53%(16) |
| 10. Inefficient and poor farm implements | 38% (81) | 40%(12) |

Source: Research Data, 1980/81.

3.02 Agricultural Extension Assistants' Responses

The thirty agricultural extension assistants interviewed were asked to list down all the factors they consider to be the major problems preventing the development of peasant agriculture. They listed, inter alia, the same ten factors mentioned by the peasants. Column three of Table 5.2 gives the frequencies each of the factors is cited by the agricultural extension assistants.

The problems of poor and exhausted soils and of over-stocked and over-grazed pastures were each cited by 83 per cent of the assistants as some of the major and serious constraints hampering the growth of peasant farming. Lack of capital and credit facilities was given by 80 per cent of the agricultural extension assistants as a serious problem responsible for the poor farming performance of their clients. The problems of constant droughts (77%), of inefficient and poor farm management due to the absence

of the able-bodied males (70%) and of the small size and fragmented nature of the peasant plots (67%) were also cited as some of the main obstacles facing peasant agriculture. Supporting the peasants, the agricultural extension assistants also noted that lack of reliable draught power (43%), unreliable labour force (53%), poor communications and transport services (40%) and poor farm implements (40%) are worrying problems affecting the agricultural productivity of peasant farming. These agricultural extension assistants' observations seem to endorse fully the peasants' perception of the major problems retarding the transformation of their agriculture.

The views of both the peasant farmers and the agricultural extension assistants also appear to be confirmed by a number of senior agricultural officers in different parts of the country. For instance, one Regional Agricultural Extension Officer in Mashonaland East noted that:

> "Soil fertility is so exhausted in many parts of this country that the Government must speed up their resettlement programme if famine is to be avoided" (10 April, 1981) (8).

This same observation is endorsed by a Senior Extension Officer in the Masvingo Province when he adds that:

> "The increasing cultivation of marginally productive land allocated from what had originally been designated grazing land is evidently responsible for the decline in peasant productivity" (12 May, 1981) (9).

Faced with such problems, as identified in Table 5.2 it seems obvious, therefore, why Zimbabwean peasant agriculture has not positively responded to most government development efforts.

## 4. PROBLEMS IDENTIFIED BY THIS RESEARCH

All the data obtained from Government officials, from the peasants, from the agricultural extension assistants, and from the peasant agricultural-promoting organisations, interviewed during this research, show

that the major problems facing Zimbabwean agriculture in general and peasant farming in particular can, for analytical purposes, be divided into six broad categories, namely: environmental; political and economic problems; poor management; peasants' distrust of government schemes; traditional and socio-cultural factors. It seems that each of these five sets of problems has its roots in, and a historical perspective connected directly or indirectly with the political ideology, economic philosophy and administrative policies of past Governments. Each problem appears to have a colonial aspect in it. The analysis of these problems will therefore be historically based.

## 4.01 Environmental Problems

> "The primary limitations on the agricultural output of African farmers are imposed by natural conditions, the dominant factors being the extent and distribution of rainfall and fertility of the soil." (Yudelman, 1964)(10)

It is undoubtedly true that the physical conditions - soils and climate - of a given environment set the primary limitations on the success or failure of its agriculture. Figure 3.7, in chapter three, shows the six natural farming regions of Zimbabwe divided on the basis of soil characteristics and climatic differences. Regions I, II and III are the only areas suitable for specialised and diversified farming, and for intensive and semi-intensive crop and livestock systems of production. Table 3.6 gives the proportional distribution of Zimbabwe's natural farming regions by various land categories. Communal Lands take up only 24 per cent of the three agro-ecological regions suitable for viable agricultural pursuits; yet large-scale commercial farming, which comprises predominantly white farmers, takes up 62 per cent of these regions, and the small-scale African commercial farming occupies nearly 3 per cent, and the rest is National Land (Figure 3.1). The rest of the Communal Lands, constituting 74.4% of the peasant land, falls within regions IV and V which are only

suitable for semi-extensive and extensive livestock production, and within region X which is unsuitable for any form of agricultural utilisation. Yudelman (1964) confirms these inequitable land allocations when he writes that:

> ".. 70 per cent of the 32,900 square miles that comprise the area suitable for intensive production have been earmarked for European use" (11)

This problem of agro-ecological unsuitability for agricultural purpose is further compounded by rural peasant land pressure. Figure 5.1 shows that some parts of Communal Lands, particularly in the provinces of Manicaland, Masvingo, Matebeleland South and the Midlands, contain up to five times more people than their ecologically recommended capacity. The same Figure also shows that much of the Communal Lands in the northern fringes of the country is still affected by tsetse-flies and hence making that area environmentally unsuitable for livestock production. It seems certainly unfair therefore to expect peasant farming to be as productive as its commercial counterpart under such comparatively adverse conditions.

## 4.02 Political and Economic Constraints

Looking at some of the political and economic decisions of the pre-independence Governments, one cannot help but argue that the under-development of peasant agriculture and the failure of government development programmes have been a direct function of a deliberate government policy. For example, it is really doubtful if the creation of the African Reserves and their centralisation, and the subsequent stabilisation of peasant agriculture were ever intended to be beneficial to the peasants. It seems that they were meant to enhance the settlers' political control of the Africans and to satisfy their economic interests. This point is confirmed by Riddell (1978) when writing about the purpose of creating the Reserves he notes that:

ZIMBABWE: RURAL PEASANT LAND PRESSURE, 1976

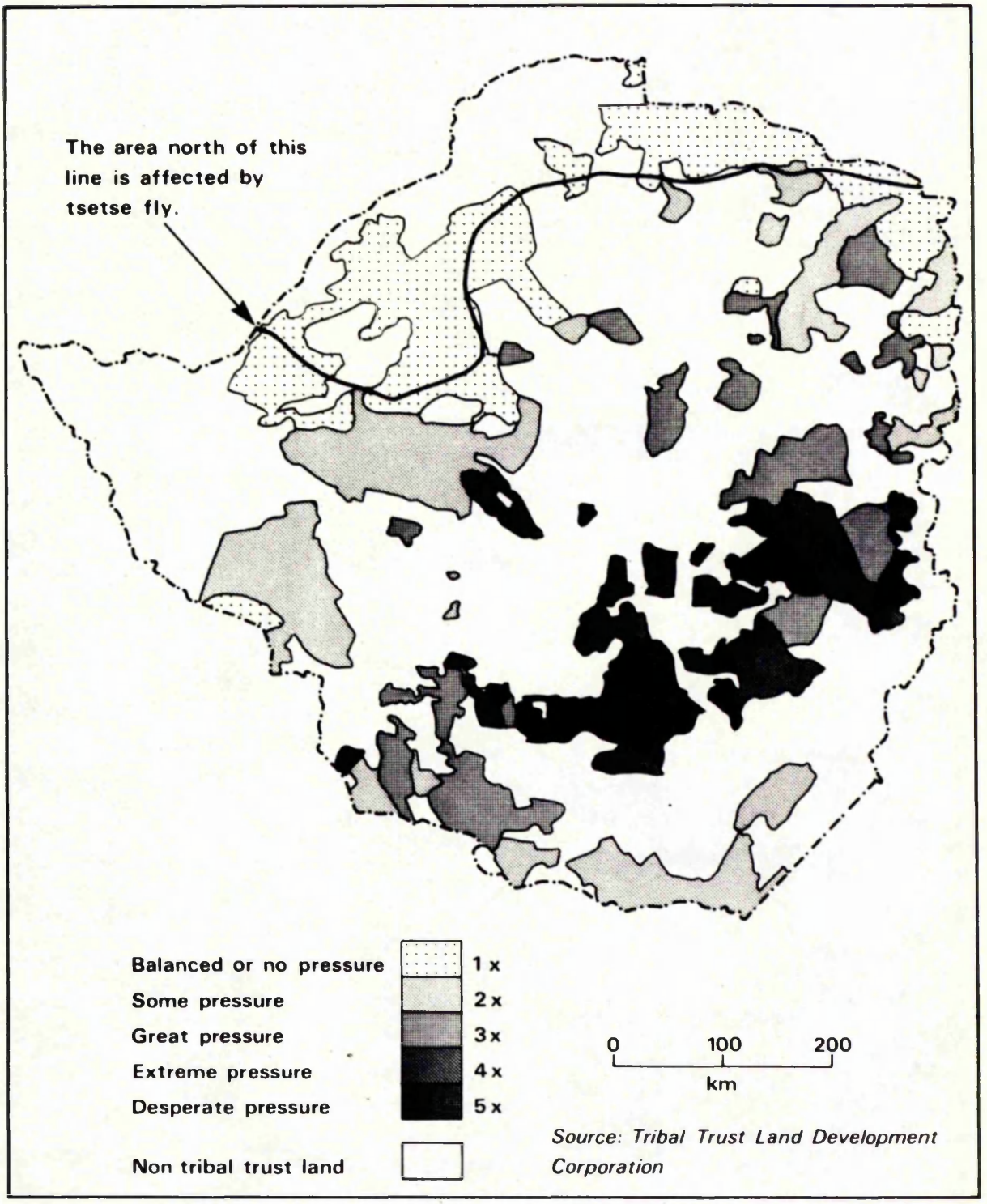



Fig. 5.1

> "Initially the aim was to supervise Africans and prevent any further uprisings against the settlers, but quite soon the fundamental role of the reserves was seen to be the provision of a permanent supply of cheap labour for the rest of the economy. But cheap labour supplies from the Reserves could only be forthcoming 'voluntarily' if reserve farming was carried out at, or better, below subsistence levels and if the Reserves were reasonably full" (12)

It is relevant therefore to ask, as M. C. Steele (1974) does:

> "Were the reserves to be centres of producing cash crops in possible competition with white farmers, or were they to remain labour reservoirs, self-sufficient in food crops and refuges for the old and refractory?" (13)

To answer this somewhat rhetorical question it is necessary to look at the money spent on peasant agriculture and development in the Reserves. Previous Governments' expenditure on the two sectors - the African and European - varied enormously. Evidence from the Report of the Comptroller and Auditor-General shows that up to the early 1940s, the Government spent large sums of money on what was then European agriculture[10] for credit, price support , capital development and agricultural services. In the same period, public expenditure on African agricultural development - both peasant Communal Lands and former Purchase Lands - was negligible in comparison. From 1945 to 1954 £12 million was spent on European agriculture and only £2 million on African agriculture; between 1973 and 1975 the Government paid out the vast sum of Z$55.2 million for subsidies, losses and assistance in the European sector - approximately Z$8,000 per farmer; yet it paid out only Z$0.4 million to African farmers, which is approximately 60 cents per farmer.

These observations are confirmed by Hume (1977), an international Zimbabwean economist formerly with the World Bank, when he notes that:

> "In 1975, white farmers were advanced about Z$111 million in short term credit - an average of about Z$18,500 per farmer. It is estimated that credit for black agriculture would not have exceeded Z$1 million in that period. This would work out at less than Z$2 per farming family" (14)

There is also evidence to show that the ratio of extension staff to farmers

during the 1970s was about 1:600 for Communal Land farmers and 1:35 for the European farming sector. How could one agricultural extension assistant offer adequate advisory service to 600 peasant farmers?

All this, it could be argued, has been a consciously planned economic policy aimed at reducing the agricultural competitiveness of the African peasantry, and at deliberately pushing the peasants off the land to attract a cheap, elastic labour force into the industrial, commercial and mining sectors. It is obvious that the twin policies of supplying cheap labour from the Communal Lands and of making peasant agriculture economically viable are in principle mutually exclusive. Is it any surprise, therefore, that the government development schemes have failed to transform peasant agriculture?

It can also be argued that peasant agricultural development efforts have foundered because of opposition from European farmers who feared competiton from peasant producers. Both Government and private efforts to hinder peasant agricultural progress are most evident. For example, Yudelman (1964) notes that:

> "Africans who wished to enter the market were discouraged from doing so by a policy designed to curb any African competition that might threaten European [farming] interests" (15)

Perhaps, one of the best examples to show how the Government sought to protect the white farmers against imminent African competition is provided by the promulgation of the Maize Control Amendment Act in 1934, as a result of strong agitation by the white farming community. After its passage, the African maize producers of the Mberengwa district found that whereas they had previously managed to sell some 10,000 bags a year, now they were able to sell none at all.[11] In Mazowe Africans had once sold maize locally at 6 to 7 shillings per bag; after the Act they were obliged to carry it long distances and to sell at 2 to 2½ shillings per bag. One African farmer, at a meeting of the Mazowe Native Board in 1934, is quoted

as asking discontentedly:

> "Why does the Government do everything to help the white farmer and nothing to help us? ..... The Government is killing us by this Act which we do not understand. It is made to do good to the white man and harm to us" (16)

Afterwards, the local Native Commissioner wrote to the Chief Native Commissioner that:

> "Never before during my 30 years service in this department have I heard natives express themselves so strongly or so openly display a spirit of antagonism to any law as they did to the Maize and Cattle Levy Acts" (17)

Is it any wonder, therefore, that peasant agriculture in Zimbabwe is so underdeveloped? How can anyone realistically expect the African peasants to improve their agricultural productivity in the face of such opposition from sectional interests which enjoy full official backing? It seems equally difficult for anyone to introduce successfully any peasant agricultural development programme under such discriminating conditions.

There is also ample historical evidence, obtained during this research, to show that pre-independence administrations had very little, if ever, political and economic respect for consulting the peasants on any development plans introduced. Over 90 per cent of the peasant farmers interviewed reported that previous governments ruthlessly ignored their aspirations. All the agricultural extension assistants, and 75 per cent of the peasant agricultural-promoting organisations interviewed also maintained that previous governments did not care to involve peasants in making the basic decisions that affected them. The government officials did not bother to explain how and why some of these decisions were made; the orders, the levies, the restrictions and the taxes were forcibly imposed on an ill-prepared peasantry. The introduction and implementation of the ill-fated Native Land Husbandry Act of 1951, which has already been referred to above, is a typical example of how peasant aspirations were flouted. This inevitably bred resentment, antagonism and sometimes out-

right opposition from the peasants. Is it any surprise when agricultural development programmes introduced in such a psycho-sociological climate fail to achieve their intended goals? It seems safe to conclude therefore that poor government management of the peasantry has also contributed to the failure of government efforts, and hence are responsible for the underdevelopment of peasant agriculture.

### 4.03 Poor Peasant Agricultural Support Base

The agricultural support base, as defined in chapter three of this thesis, is considered indispensable to the transformation of peasant agriculture from subsistence to commercial production. Important as they may be, the agricultural infrastructures and institutions serving peasant agriculture in Zimbabwe have, for a long time, been miserably neglected. This may not seem surprising in view of the political and economic attitudes of the pre-1980 administrations towards African agriculture.

#### (a) Agricultural Infrastructural Facilities

The most important agricultural infrastructures in Zimbabwean peasant farming are the transport and communication network, storage and marketing facilities. Figure 3.1, above shows that most of the roads which connect the Communal Lands with the main sources of the necessary input items, and with the major urban markets, are simply dry-weather tracks. During the rainy season - a period of vital importance to crop producers - many of these roads are un-usable and the low-lying bridges impassable; the surfaces of most of the roads in the remote parts of the Communal areas are generally rough, rutted and dotted with large potholes; severe wash-outs are frequent. This point is most succinctly summarized by the Riddell Commission (1981) when they observe that:

> "Most roads progress from full tarmac to all-weather gravel and then peter out into badly maintained dirt tracks as one moves from commercial into peasant farming areas. In many areas, passable roads literally stop at the fences between the two". (18)

In addition to poor roads, there is a severe lack of motorized transport. Sometimes in an area of several hundred square kilometres there may only be one poorly maintained lorry, serving as many as 2,000 farmers. In recent years, this problem has been compounded by the shortage of fuel. Figure 3.1 also shows clearly that railways are confined to the Highveld, which as already mentioned in chapter three, is largely the preserve of commercial farming. The effects of such poor transport facilities on the supply of the necessary inputs, and on the delivery of surplus to the urban market are most obvious and hence require no elucidation. The lack of easily accessible, reliable and efficient postal services, telegraph and telephone communications complicates further the whole communication system in the peasant sector.

In Zimbabwe fluctuations in yields, which may occur every four years, have had disastrous consequences. Yet these consequences could easily have been overcome, at least partially, by the provision of adequate storage facilities. Lack of suitable storage has often led many peasants to sell their surplus immediately after harvest at relatively low prices and to buy some of it back later at much higher prices. The peasant agricultural promoting organisations interviewed estimated that the peasant farmers lose between 20 and 25 per cent of their produce due to wastage and pests in poor storage facilities. Examples of loss of the peasants' crop before and during delivery to the market are numerous; yet these losses could easily be avoided if there were suitable and adequate grain silos and warehouses. The availability of these facilities is not only an essential precondition to change in peasant agriculture, but also provides a stimulus to peasant farmers to effect such change.

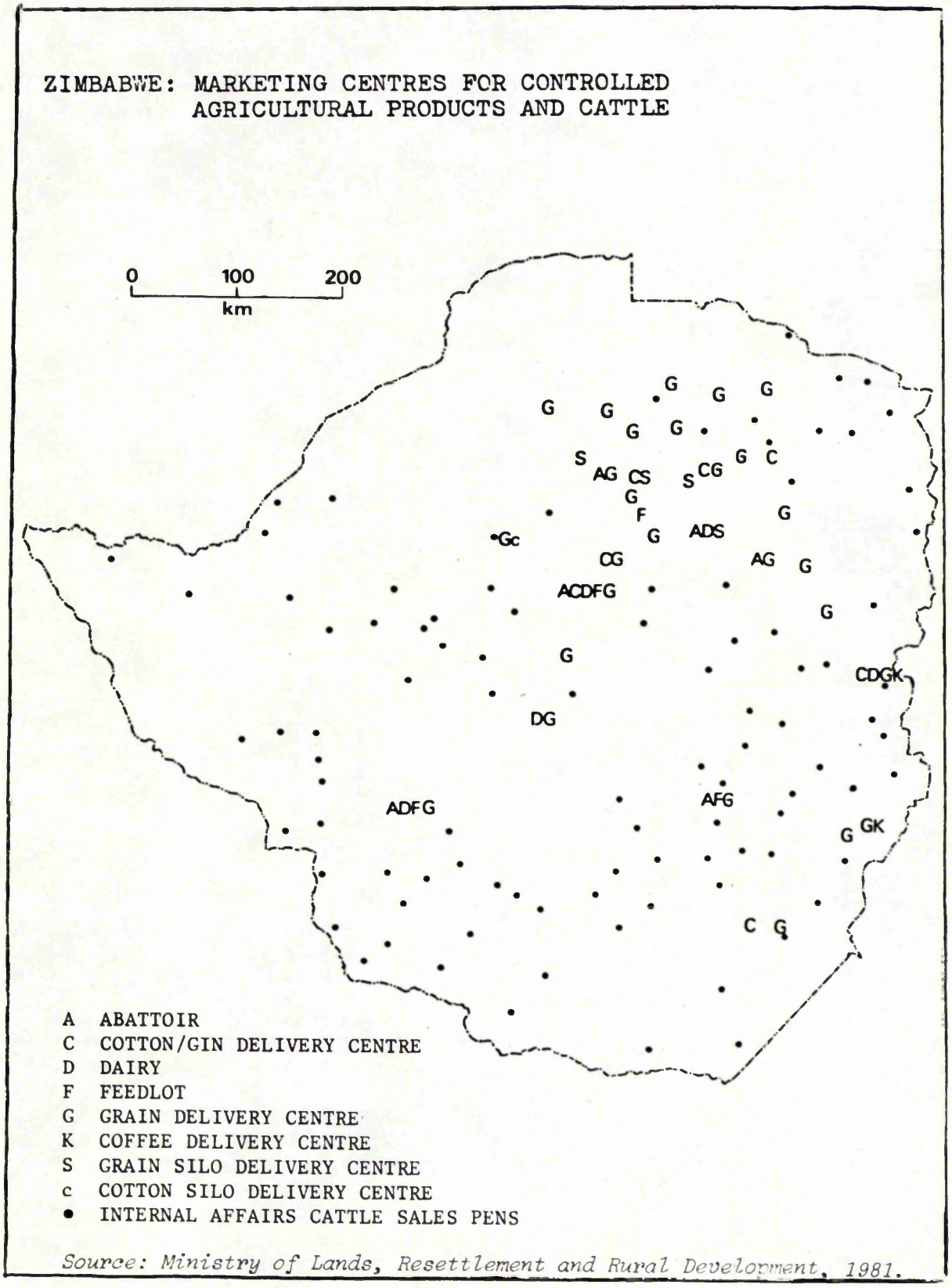

ZIMBABWE: MARKETING CENTRES FOR CONTROLLED AGRICULTURAL PRODUCTS AND CATTLE
0
100
200
km
A ABATTOIR
C COTTON/GIN DELIVERY CENTRE
D DAIRY
F FEEDLOT
G GRAIN DELIVERY CENTRE
K COFFEE DELIVERY CENTRE
S GRAIN SILO DELIVERY CENTRE
c COTTON SILO DELIVERY CENTRE
• INTERNAL AFFAIRS CATTLE SALES PENS
Source: Ministry of Lands, Resettlement and Rural Development, 1981.

Fig. 5.2

Zimbabwean peasant farming is not exclusively subsistence. An increasing number of farmers are now capable of producing some surplus which requires delivery to the markets - for internal trade and consumption, and for external export. The marketing of all the main crops and major livestock (cattle and sheep) in Zimbabwe has, since 1965, been controlled: that is, they are bought by the statutory marketing boards at fixed prices. The peasant farmers may also sell their crop surplus or livestock to private organisations - for instance, Mission Boarding Schools - or to individual peasants provided that the product or animal does not cross the boundary between Communal Lands and other areas. The peasant produce which was sold through the statutory marketing boards used to be discriminated against by the Government. According to Hume (1977),

> "Europeans are unequivocally encouraged to produce and helped in their selling to every extent reasonably possible. Although it is official policy that Africans should produce more, it is also policy that they should find their own means to do so, and when they sell, that they should themselves arrange to get their small-lot production first bulked and then transported to depots sited to suit the European farmers" (19)

Nearly 70 per cent of the peasants interviewed travel over 50 kilometres, on rough and rutted roads, to get to the nearest markets. Figure 5.2 shows the distribution of the major marketing centres for controlled agricultural products and cattle. With the exception of the former Ministry of Internal Affairs, cattle sale pens which are fairly scattered in most Communal Lands most of the marketing depots of the rest of the agricultural products are located in the main urban centres that are, as already noted, sited to suit the large-scale commercial farmers.

Because a large proportion of the peasants have no skill in grading their crops or weighing scales, the buyers may grade unfavourably to the farmer, and weigh the crops; they also deduct a government mandatory levy of between 10 and 15 per cent of the selling price and his commission

before paying the farmer. After all these deductions and the payment of expensive transport costs, the farmer receives in the end only 50 - 75 per cent of the real value of his produce. Such marketing facilities and services would surely never promote the development of peasant agriculture?

With such neglected and depressed agricultural infrastructures it appears clear why some peasant cultivators do not seem motivated to produce more than they need for their subsistence. But what is even clearer is that even those peasant farmers who might have aspired to produce for commercial purposes could never have hoped to succeed against such formidable infrastructural obstacles.

### (b) Agricultural Institutional Framework

There are six agricultural institutions -- the educational and training, input manufacturing, agricultural development, research, credit, marketing and pricing - considered important to peasant agriculture.

In section two of this chapter it has been shown that the agricultural extension service has, since its inauguration in 1927, been one of the most helpful agricultural educational institutions to peasant farming. Yet biased government policy and opposition from European farmers, as already shown, were openly frustrating efforts to improve peasant productivity. For instance, in the Masvingo province where Alvord's demonstrators had helped the peasant farmers to grow maize successfully for the first time, Palmer (1977) writes that European farmers

> "... successfully campaigned for a reduction in the number of demonstrators being trained - for a short while Carbutt[12] imposed a complete standstill on training; Alvord was shunned and treated as a pariah by Europeans whenever he went to town" (20).

One other example which shows that most of the white government officials, even those in the department of agricultural extension service, were not genuinely interested in the development of peasant agriculture, is aptly

highlighted by one Regional Agricultural Extension Officer's[13] cynical remarks about the success of one of his peasant farmers who had received a cheque of Z$23,000 from the sale of his fattened cattle. When the local agricultural extension assistant excitedly told the Officer how much the farmer had got, the officer replied contemptuously, and much to the astonishment of the extension assistant: "Bloody hell, what is he going to do with all this money?"[14] Surely anyone interested genuinely in the progress of his clients would have been delighted at this farmer's success? Such a remark casts serious doubts on the Southern Rhodesian and Rhodesian Governments' claims of their 'commitment' to the development of peasant agriculture. All the agricultural extension assistants interviewed equally doubted the sincerity of the previous governments' 'efforts' at improving peasant agricultural productivity.

Peasant farmers, like their counterparts in the commercial sector, need farm tools, equipment, implements, machines, tested seeds, fertilizers and chemicals for the control of pests, diseases and weeds in order to transform their farming. The capacity of the manufacturing firms of these input items has always been inadequate. This has often led to serious shortages, especially of certain drought-resistant seeds, of certain brands of fertilizers and chemicals. For example, in 1980/81 there was such an acute shortage of ammonium nitrate - a brand very vital in maize production - that many peasants had to use urea, which is essentially a tobacco top-dressing fertilizer. 80 per cent of the co-operative farmers interviewed estimated that the use of urea reduced their maize yield by 30-40 per cent. Consequent upon these shortages, the prices of these inputs have become so excessively high that most peasant cultivators cannot afford them. Over 75 per cent of the agricultural assistants interviewed estimate that the peasants' inability to acquire these inputs reduce their production by nearly 50 per cent. Secondly, as the previous governments' policy always favoured the large-scale commercial farming sector, most of the supplies

manufactured are made available to that sector at the expense of the peasant sector. Because of government connection with the input manufacturing institutions and the government's control of agricultural prices, the disparity between the cost of the inputs and the prices paid for the peasant farmers' lowly graded products has always been unfavourable to the peasant producers. For instance, in 1978/79 (a year before independence), the price ratio of a kilogram of nitrogen fertilizer to one kilogram of peasant maize was about 5 to 1 compared with a ratio of 3 to 1 or less on the commercial farmers' maize. Evidently, these problems are a hindrance to the transformation of peasant farming.

With the exception of the agricultural education and training, and of the agricultural input manufacturing institutions, the history of the other government controlled agricultural institutions in Zimbabwe is very recent. Their creation, adaptation and/or consolidation is a post-U.D.I.[15] phenomenon. Most of the parastatal agricultural development institutions, such as the Agricultural Development Authority; the research institutions, within the Agricultural Research Council; the credit institutions, such as the Agricultural Finance Corporation; and the marketing and pricing institutions, such as the Agricultural Marketing Authority, were all set up for the promotion of large-scale commercial cropping. Their benefits to peasant agriculture were almost negligible, except in an indirect way.

The only statutory development institution which was set up to foster agricultural development in the Communal Lands is the Tribal Trust Land Development Corporation (TILCOR). While some of its agricultural irrigation projects have done quite well (Hughes, 1974), interviews carried out with some of its staff for this research reveal that this Corporation has, for reasons that are outside the scope of this section, failed to ameliorate the plight of peasant farming.

Agricultural research in Zimbabwe has made a significant contribution to the development of the farming industry as a whole. The Department of

Research and Specialist Services, famous for its hybridization work on cotton, wheat and especially maize, produced the first hybrid maize outside the United States. Their hybrid maize seed varieties, for example the SR52, R200 and R201, have done very successfully under the climatic and soil conditions of Zimbabwe, and their cattle breeds, such as the Mashona and the Tuli, prospered well, especially during the long dry summers. But unfortunately for the peasant farmers, much of this research concentrated on the improvement of cash crops - coffee, cotton, deciduous fruits, maize, sunflowers, tea, tobacco and wheat - and on the production of commercial livestock - beef and dairy cattle, pigs, poultry and sheep. No evidence is available to show that any research had been undertaken to improve the draught capacity of peasant oxen. The minute budget allocation on agricultural research of 0.3% of Gross National Product, in 1981/82, has always been one of the greatest handicaps in diversifying and expanding agricultural research activities.

The problems deriving from defective statutory credit and marketing facilities are perhaps the most serious institutional obstacles in the progress of peasant agriculture. Because of their severity and of their connection with agricultural co-operatives (to be dealt with later), these credit and marketing problems will be given detailed treatment in Part III of this thesis. However, let it suffice to say, at this point, that evidence obtained from the Whitsun Foundation suggests that both the number of peasant farmers receiving loans and the total level of credit and marketing assistance proffered from non-institutional sources is considerably in excess of that obtained from institutional sources, thus implying a reckless negligence of peasant farming by government institutions.

### 4.04 Peasants' Distrust of Government Schemes

It is indeed true that some of the government-sponsored development schemes failed because of African refusal to co-operate with

government development promoters, especially agricultural extension assistants, and/or peasant refusal to adopt modern agricultural techniques. Palmer (1977) cites two cases of African resistance to government development attempts when he notes that:

> "In the Selukwe Reserve, Africans were very suspicious. Most of them think this /agricultural promotion/ is some scheme of the government to take their land away from them; while in the Chikwaka Reserve, Salisbury, they saw it as an attempt to test agricultural potentialities of the reserves with a view to their being exploited for the benefit of the white population!" (21)

These identical fears among two peasant communities, over 400 kilometres apart, are not a reflection of sheer peasant conservatism. They were genuine fears based on bitter past experience of massive African land alienation, which had taken place since the days of the British South African Company's rule of the colony.[16]

There is, however, evidence showing that some peasant farmers were extremely reluctant to abandon their traditional methods of agriculture which however quaint they might appear to white government officials' eyes, at least guaranteed their survival. The 212 peasant farmers interviewed during this research had different reasons for their previous and/or current reluctance to abandon their traditional techniques of agricultural production in favour of the modern methods promoted by the agricultural extension assistants: 40 per cent of them dreaded the risk of starvation in case the new 'untried' practices fail; 21 per cent had no respect for the farming ability of the inexperienced young demonstrators fresh from school; 18 per cent resented demonstrators because they were used to performing regulatory, supervisory or commercial duties, involving enforcing government regulations or laws, and the collection of repayments of production loans;[17] 13 per cent felt that adoption of the new methods required the use of agricultural inputs which they could not afford; and 8 per cent did not appreciate the point of toiling hard to increase their

production because the government controlled markets and the prices paid for their produce discriminated against them. From this evidence, it seems safe to say that the officials were therefore partly to blame for peasant reluctance to co-operate with development attempts.

## 4.05 Socio-cultural Problems

There are two opposing schools of thought regarding the role played by social and cultural factors in retarding the transformation of peasant agriculture. One school propounded by such exponents as Schultz (1964) and Mellor (1969), considers the peasant as 'a miniature economic man' acting within the bounds of economic rationality and striving to improve his economic position, where socio-cultural factors only have a marginal role. According to this school of thought, peasant farmers will respond quickly, normally and efficiently to economic incentives in adopting new techniques (Behrman, 1969). This view is supported by 63 per cent of the agricultural extension assistants, interviewed during this research, who reported that in present-day Zimbabwe socio-cultural factors and traditional customs pose no insurmountable obstacles to the spreading of agricultural technological innovations. They cited the enthusiasm of their peasant clients in the Master Farmers' Scheme and their quick response to new farming techniques as testimony to the peasant farmers' readiness to accept economically sound innovations. Supporting this same view, the Silveira House Agricultural Department, which deals with the Catholic Association Agricultural Co-operatives in parts of the three Mashonaland provinces[18], reported that traditional cultural values are no longer an impediment to the diffusion of modern agricultural technology.

However, a second school of thought considers that in peasant agriculture, non-economic forces outweigh purely economic forces, leading to behaviour that is not within the bounds of economic rationality (Balogh,

1966). This second view is supported by 37 per cent of the agricultural extension assistants interviewed. They maintain that, according to their experiences gained mainly from the remote districts of the Masvingo province certain peasant cultural beliefs and traditional rules of behaviour and attitudes constitute formidable barriers to technological innovations, and cannot be easily changed by exhortations, regulations or logic. This is the reason why the introduction of 'new' crops - e.g. cotton and maize- for commercial purposes, in the Chiredzi, Mwenezi and Ndanga districts of the Masvingo province (Figure 7.1), and the introduction of foreign ideas of land tenure systems and alien concepts of land-use patterns were fiercely resisted. Both the agricultural extension assistants and the peasant farmers contacted and/or interviewed during this research reported two examples where social and cultural[19] values have affected the development of peasant agriculture. The first is the religious attitude of certain sects, for instance the Apostles and Zionists, which forbid their members either to eat or touch such livestock as pigs (a commercially valuable animal in Zimbabwe), rabbits and ducks. These religions have also forbidden their adherents from receiving medical treatment, however ill they may be. As a result, poor health has seriously affected the labour performance of these communities, especially in parts of the Masvingo province. The second example is the widely observed traditional practice of the day of total abstinence from work, known in the vernacular as '<u>chisi</u>' (Appendix IIIb); some communities 'religiously' observe two such days in a week. The Zimbabwean peasant observance of '<u>chisi</u>' and the weekend resting day(s) is said to reduce the peasant's working time by a substantial number of hours. A good number of extension assistants also stated that some of their clients cannot be persuaded to increase their yields because they would be bewitched by their less successful neighbours, while others genuinely hold the belief that they can increase their yields by using magic (<u>divisi</u>).

Although most of these cultural values and attitudes seem to be fast disappearing - a point firmly endorsed by all the agricultural extension assistants interviewed - their impact in retarding the diffusion of modern agricultural innovations is clear. The problem of transforming peasant farming has not therefore been only one of training the individual farmer in the necessary farming skills, but also one of persuading the community to create a social climate and a cultural environment in which the potential adopter is encouraged, or at least allowed to employ the newly-acquired agricultural technology.

## 5. CONCLUSION

From the above brief account of the problems besetting peasant agriculture it seems difficult to accept that most of the pre-independence government development efforts were genuine. If they were genuine then these governments were grossly wrong in their basic diagnosis of peasant farming problems. It seems equally difficult to accept this either, because historical evidence appears to show that men like Alvord and those early district commissioners quoted above were making correct diagnoses of the peasants' problems. But if somebody provided correct diagnoses, why were the solutions unable to rectify the situation? It is clear and seems reasonably safe to conclude that the current continued under-development of peasant agriculture has been a function of deliberately designed pre-independence government policies and their poor development strategies, and the peasants' refusal to support and/or co-operate with any government efforts.

Part III, which deals with three different forms of agricultural co-operation, will confirm these conclusions by showing, in chapter six how a poor development strategy fails, and by illustrating, in chapters seven and eight, the importance of an acceptable development strategy, and the significance of peasant involvement in, co-operation with, and support of a development strategy.

## CHAPTER 5: FOOTNOTES AND REFERENCES

5.1 This theory has been propounded by J. H. Boeke (1953) in Economics and Economic Policy of Dual Societies as Exemplified by Indonesia.

5.2 Master Farmers' Certificate is a printed card presented to an African farmer in recognition for his success in adopting Alvord's ten principles of modern farming (Appendix VI).

5.3 Native Reserves were portions of land allocated, in terms of Southern Rhodesian Order in Council of 1898, for the communal occupation of the peasants.

5.4 The figure of 1,314 stands for the total number of agricultural extension assistants as at August 1981; it excludes all the members at the senior and administrative levels of AGRITEX.

5.5 Centralisation of native reserves refers to the location or re-location of peasant huts in such a way that communal grazing was confined to land classified as suitable for grazing, while cultivation was to take place on "arable" land.

5.6 Official Year Book of the Colony of Southern Rhodesia, Number 3 (Salisbury, 1932), p. 674.

5.7 S 235/510 Report of the N/C Charter for the year 1932.

5.8 This levy was removed in 1979 as it was socially discriminatory and discouraged sales and efficiency.

5.9 The Native Land Husbandry Act, Number 52 of 1951 (Preamble).

5.10 European agriculture is now referred to as large-scale commercial farming, in contradistinction to small-scale commercial farming, which used to be African Purchase Lands farming.

5.11 This information is from S 1542/N2, Report of the Belingwe Native Board Meeting, 13 May, 1937.

5.12 C. L. Carbutt was the Chief Native Commissioner from 1930 to 1935.

5.13 Regional Agricultural Extension Officers were then known as Senior Agricultural Officers.

5.14 This quotation is attributed to a Mr. Bovee (1972) then Senior Agricultural Officer of Chibi district, by Mr. R. F. Mukurumbira, who served as an agricultural extension assistant in Chibi and Gutu, from 1964 to 1975.

5.15 U.D.I. stands for the Unilateral Declaration of Independence, an act of rebellion against the British Crown, carried by Ian Smith's Government on 11 November, 1965.

5.16 Space does not allow this thesis to go into the historical details of land alienation since the 1915 Native Reserve Commission. However, more evidence on this issue is found in Palmer, R. (1977: 104-187); Riddell, R. C. (1978: 6-14); Weinrich, A. K. H. (1975: 17-24) and Yudelman, M. (1964: 57-84).

5.17 The 18% of the peasant farmers were here referring to the use of agricultural extension assistants in enforcing the Land Husbandry Act and the collection of the repayments of the loans during the early days of the government-sponsored agricultural co-operatives, to be discussed in the next chapter.

5.18 The Provinces referred to as the three Mashonaland provinces, in this thesis, are Mashonaland Central, Mashonaland East and Mashonaland West (Figure 3.8).

5.19 Culture here is used in its widest sociological sense, where religion is regarded as a cultural element of a society.

5.20 Apostles and Zionists are adherents of two separate Christian sects whose doctrines are based mainly on the teachings of the Old Testament.

SOURCES OF QUOTATIONS AND REFERENCES

5.1 'Official Report on Debates of the Legislative Assembly' (unrevised), Vol. 48, No. 43 - Salisbury: Government Printers 1960. The figure in square brackets denotes column numbers in official reports.

5.2 Jordan, T. W. F., 1974: Extension Development in Tribal Farming: Rhodesia in the 1970s, in Rhodesia Agricultural Journal, Vol. 71(3) p. 71.

5.3 Wilson, N. H. 1923: The Development of Native Reserves, NADA 1, 88.

5.4 Report of the C.N.C. for the year 1932 (Salisbury, 1933) pp. 2-3.

5.5 Report of Secretary for Native Affairs and Chief Native Commissioner for the year 1954 (Salisbury, 1955).

5.6 S 235/513 Report of the Assistant N/C Shangani Reserve, 1935.

5.7 Report of the Agriculturist, Native Development, for the year 1934, in Report of the Chief N/C for the year 1934, (Salisbury, 1935), p. 18.

5.8 Kandiero, W., 10 April, 1981 "Unstructured Interview" Goromonzi District.

5.9 Chikutuva, C., 12 May, 1981 - "An Unstructured Interview", Chibi District.

5.10 Yudelman, M., 1964: Africans on the Land, pp. 76-77.

5.11 Ibid., p. 78.

5.12 Riddell, R. C., 1978: The Land Problem in Rhodesia, p. 7.

5.13 Steele, M. C., 1974: "Native Policy 379" quoted in Palmer, R. - 1977: Land and Racial Domination in Rhodesia, p. 218.

5.14 Michael Knipe reporting in 'The Times', 20 May, 1977.

5.15 Yudelman, M., op. cit., p. 179.

5.16 S 1542/N2, Report of the Mazoe Native Board Meeting, 12 and 19 June, 1934.

5.17 S 1542/N2, N/C Mazoe to CNC, 12 July 1934.

5.18 Riddell, R. C. (1981): Report of the Commission of Enquiry..... p. 58.

5.19 Hume, I. M., 1977: African Co-operative Societies in Rhodesia, p. 23.

5.20 Palmer, R. - 1977: Land and Racial Domination in Rhodesia, p. 220.

5.21 Ibid., p. 219.

PART III

## DIFFERENT FORMS OF AGRICULTURAL CO-OPERATION AND THEIR EFFECTIVENESS AS DEVELOPMENT STRATEGIES

Part III covers three forms of agricultural co-operation in chapters six, seven and eight; they form the bulk of the thesis. This part appraises critically the effectiveness of the three forms of agricultural co-operation as agricultural development strategies.

Chapter six deals with the organisation and distribution of and the services offered by the Government-sponsored agricultural co-operatives. It examines the movement's achievements and failures, and the consequent effects on the transformation of peasant farming. Chapter seven examines the development and services offered to peasant farming by the Association of Master Farmers' Clubs. It assesses the impact of the organisation on the growth of peasant farming. Chapter eight deals with the Catholic Association Agricultural Co-operatives. It looks at the philosophy underlying the growth and distribution of these co-operatives. The chapter also analyses the services offered to peasant farmers. It examines the organisation's role in the diffusion of agricultural innovations among the peasants.

# CHAPTER 6

# THE GOVERNMENT-SPONSORED AGRICULTURAL CO-OPERATIVES

## 1. INTRODUCTION

### 1.01 Scope and Sources of Data

An objective appreciation of the effects of government-sponsored agricultural co-operatives on peasant farming requires a clear understanding of the aims and objectives of these co-operatives, and of the mode of their operations and the services rendered. To do this, this chapter will analyse, describe and explain the historical background to these co-operatives, and their structural organisation and functional modes. The administration of the co-operative societies, at various levels, and their spatial and temporal distribution will also be critically examined because it is felt that they are very useful guides in the evaluation of the societies' effectiveness and achievements.

Most of the data used in this chapter were obtained from interviews carried out with 24 government-sponsored co-operative members who were contacted from three villages in Chibi, Goromonzi and Shurugwi, and from 32 peasant farmers from the main research sample[1]. Very valuable comparative information was also obtained from the six co-operative societies committee meetings attended, and from the fourteen co-operative officers interviewed during this research. An interview with the Director of Marketing and Co-operative Services, and his annual reports, have yielded most of the statistics quoted in this chapter. It seems relevant, at this point, to mention that all the statistical data in the tables from the Director's annual reports include figures from both the former African Purchase Lands and the Communal Lands peasant farmers; so those statistics do not reflect an entirely peasant agricultural performance according to the definition

Some data were also obtained from private and para-statal organisations, for example the Whitsun Foundation and Agricultural Finance Corporation respectively. Information was also derived from secondary and tertiary sources, that is, books and newspapers respectively.

## 1.02 Historical Background

The birth, growth and impact of these government-sponsored agricultural co-operatives can only be understood in historical perspective.

The first legislation, in the then colony of Southern Rhodesia, governing co-operative societies was the Co-operative Agricultural Societies Act of 1909 which was enacted to serve the struggling white commercial farming community. But this Act did not confer upon the Societies registered thereunder the benefit of limited liability for their members. Consequently, there were only ten societies registered under this Act before its removal from the Statute Books by Act No. 30 of 1958. The commercial agricultural sector therefore demanded co-operative legislation which provided for limited liability. This demand was met by the enactment of the second co-operative statute, the Co-operative Companies Act (No. 34 of 1925), which was promulgated on 1 April, 1926. Today a number of large-scale commercial farmers' agricultural co-operative companies of considerable economic significance are registered under this Co-operative Companies Act.

While satisfactory progress was being made through these co-operative companies and statutory marketing bodies[2], in servicing the needs of the white farming sector of the agricultural industry, it became increasingly clear by 1944 that the requirements of the peasant sector, in both the Purchase and Communal Lands, were not being met. Accordingly, in 1944 the Government appointed the Native Production and Trade Commission to investigate the problems of marketing and supply in the African areas. In

its report, dated 16 November, 1944 the Commission recommended[3], inter alia, the passing of suitable co-operative legislation to facilitate the registration of agricultural, trading and other co-operatives to serve the African interests. Consequent upon this recommendation, the Government appointed an Assistant Native Commissioner, R. J. Dinnis, as the first Registrar of African Co-operatives in 1954. The appointment of the Registrar was followed by the promulgation, on the 1st of June, 1956, of the Co-operative Societies Act, which was modelled on the Ceylon Co-operative Ordinance of 1922, which itself had been advocated by the British Colonial Office and had been adopted in most former British dependencies. The Act was non-racial, in theory, and it catered for the registration of societies of all kinds, provided they had as their object the promotion of the economic interests of their members in accordance with co-operative principles, which have been thoroughly discussed in chapter one. But, in practice and for all intents and purposes, the Co-operative Societies Act was considered better suited to serve the needs of the African farming community. It has, therefore, been almost exclusively used for the registration, administration and operation of the African Agricultural Co-operatives.

## 2. ORGANISATION AND THEORETICAL PERSPECTIVE

### 2.01 Aims and Objectives

Co-operative societies are established for a variety of reasons. It has been already stated in chapter one, that individuals form and/or join a co-operative society for economic, sociological or socio-political motives. When the Rochdale Pioneers Co-operative Society was formed in England in 1844, its original purpose was to supply consumer goods to the members of the movement at prices cheaper than those at which they could be obtained through commercial channels. It was only

later that the marketing potential of this movement was realised and appreciated. In Zimbabwe, the development of the African co-operative movement has been the reverse of this. The supply and marketing problems which had been identified by the Native Production and Trade Commission in 1944 needed some institution which would provide solutions to these constraints in the development of peasant agriculture. The Zimbabwean co-operative movement was therefore initially founded

(a) to enable African farmers to obtain supplies, in bulk, of their agricultural requirements of seeds, fertilizers, chemicals, animal foodstuffs, farm implements and tools, and empty grain bags at reduced prices;

(b) to provide adequate and reliable marketing channels for the disposal of the producers' surplus; and

(c) to arrange for the transport, in bulk and at contract rates, of the agricultural production of their members.

As time went on, some of these agricultural marketing and supply co-operative societies expanded the scope of their operations and began supplying consumer goods to their members. Some co-operative societies have mobilized rural savings through the formation of Savings Clubs and, in some cases, Co-operative Credit unions, especially during the decade 1966 to 1975. These secondary societies have, in turn, provided credit facilities to the members for acquiring the necessary agricultural inputs and have opened co-operative stores and supermarkets. Notable examples of these co-operative supermarkets are found in Chivhu and Gokwe, in the Midlands Province, and in Sanyati in Mashonaland West (Figure 3.8).

## 2.02 Structure and Functions

Although co-operative organisation depends on the society's scale of operation and the type of function each is expected to perform, the pyramidal structure shown on Figure 6.1 below provides the basic

model most common throughout the world. The organisational structure generally has three tiers. In Zimbabwe, the first tier consists of 332 primary co-operative societies, made up of 44,863 individual members, at village level. 250 primary co-operative societies have formed twelve Co-operative Unions, which operate at the regional level; they constitute the second tier of the pyramid. 8 of these unions formed, in 1972, a tertiary organisation, which is known as the Central Association of Co-operative Unions Limited which is a national organisation. Society members pay an entrance fee of up to 50 cents and a share capital into the co-operative union of, say Z$10 for each ten members of the society. Both societies and Unions also obtain revenue through levying handling charges.

THE TYPICAL PYRAMIDAL STRUCTURE OF ZIMBABWEAN CO-OPERATIVE MOVEMENT.

1

TERTIARY
SOCIETIES

12

SECONDARY SOCIETIES

332

PRIMARY SOCIETIES

Source: Data from the Report of the Director of Marketing and Co-operative Services for 1980.

FIGURE 6.1

The significance of this structure is hard to appreciate for anyone more accustomed to commercial or governmental organisation. The central body in this structure is not a head office passing orders to subsidiaries. It is, in theory, a servicing organisation for its grassroots owners, or members. In practice, however, the existence of specialised skills or

strong characters in the central bodies most often allows the latter to lead as well as serve.

It has already been noted that ideally agricultural co-operation embraces all the co-operative activities which are aimed at helping the farmer in his professional capacity as a producer. In reality it is not possible for any one co-operative to embrace all the agricultural activities necessary for the requirements of a 'professional' farmer. The functions performed by agricultural co-operatives are, however, diverse. But normally the following four distinct categories may be identified, with a fifth category, which includes co-operatives that perform combinations of functions (a) to (d):-

(a) Production co-operatives - engage in purely productive ventures. In Zimbabwe there is only one which is included among the 332 primary societies in Figure 6.1. But there have, since the Director's report, been several registrations of more agricultural production co-operatives (Mahachi, 1982)[4].

(b) Consumer co-operatives - include various supply societies, which provide members with low-priced consumer goods and the necessary agricultural inputs required in the productive process of the farming activities.

(c) Marketing co-operatives - provide members with an efficient marketing system through offering accurate and sufficient information on developments on domestic and world markets, about trends in demand regarding quality and varieties, and about the prices of agricultural produce at wholesale and retail levels, through efficient handling and transporting of the produce from the point of collection to the point of selling.

(d) Financing co-operatives - include thrift and credit co-operative societies. Their functions are to mobilize rural savings among the members, to secure an adequate and timely supply of capital at reasonable price, that is, at a manageable rate of interest, and at reasonable terms for the benefit of the members, and to supervise and educate the members in the efficient use of credit.

(e) Multi-purpose co-operatives - offer a combination of two or more of the above functions.

In Zimbabwe, the 331 primary co-operatives are multi-purpose societies. They combine the functions of the second and third types. They are, therefore, referred to as the agricultural marketing and supply co-operatives. The co-operative unions supply the societies with their members' inputs requirements cheaply because they buy in bulk. Unions employ staff and keep an account of each society member, and are therefore able to provide their member societies with more and more of the sophisticated book-keeping operations. They also help in the formation and establishment of new primary societies. The Central Association of Co-operative Unions provides ancilliary services, such as publicity, external relations and price negotiations. This helps to keep the prices of farming supplies at a reasonable level, and to raise the prices offered for the members' produce.

## 3. ADMINISTRATION, AND SPATIAL AND TEMPORAL DOMAIN

### 3.01 Government Involvement and Management

In Zimbabwe, as in most developing economies, agricultural co-operatives are the product of government policy. All the agricultural

co-operatives which were formed between 1956 and 1980 were initiated, registered, supervised, educated and disciplined by the central government through its Registrar, who had been appointed

> "not merely to register, but to encourage, guide and advise Africans in the limited kinds of co-operation it [Native Production and Trade Commission] recommended"(1)

The decisions of central government were therefore largely responsible for the definition of the environment within which co-operatives existed and operated. By 'government decisions' it is meant not only the grand policy statements made by legislators and Ministers but also the myriad of rules, guidelines, customs and procedures initiated and made by the Department of Marketing and Co-operatives, which is responsible for the implementation of the grand policy abstractions of central leadership. The Government also provide an extension service to promote and foster growth of agricultural marketing and supply co-operatives. Though the government has made certain fiscal concessions to co-operatives[5], the co-operative movement has received no funds by way of grants or subsidy from any source.

The African agricultural marketing and supply co-operatives fall under the Department of Marketing and Co-operatives, within the Ministry of Lands, Resettlement and Rural Development[6]. This Section is headed by a Director-cum-Registrar, whose appointment and powers are covered by the Co-operative Societies Act of 1956. Of the fourteen co-operative officers and assistants (12 per cent of the total staff) interviewed, about 71 per cent of them see their main role as one of ensuring that money belonging to 'unsophisticated' members of societies is not misused by unscrupulous committee members. They maintain that this justifies a close involvement in the affairs of 'their' co-operatives. With the exception of four Co-operative Unions - Chivhu, Masvingo, Sebungwe, in Kwekwe, and one other - and a number of primary societies which refuse to be members of a Union, the Department staff still closely control the day-to-day affairs of some 250 primary societies. This has generated an impression among many

co-operators contacted that the marketing and supply co-operative societies belong to the Director of the Department of Marketing and Co-operatives and his staff. When the Director was interviewed he emphasized that it is official Department policy to teach members of the co-operatives to realise that the societies belong to them. Yet in practice this research has found that Department staff find it extremely difficult to loosen the grip of their supervisory role and power, whatever some individual officers and assistants may claim. The fear that 'these chaps will make a complete mess if we let them' is prevalent. Perhaps they do it with the best of intentions.

All the fourteen interviewees stated that their other two additional roles were the provision of extension services (teaching and advising) and the inspection of societies' accounts books. Nearly 75 per cent of the agricultural extension assistants interviewed felt that of all the duties of field co-operative officers and assistants the teaching activity should have priority. Yet, according to Hume (1977)

> "It seems that the Co-operative Officers and Assistants in the field expend not more than 15% of their time in any advisory or teaching activity. Almost all of the time of the (African) Assistants and at least 85% of that of the Co-operative Officers is employed in control of the account books of the societies" (2)

For all this, the Co-operative Societies Act does not confer on the Director and his staff any responsibility as trustee of funds. The legal obligations of the Director are the initial registration of a society, ensuring that accurate annual accounts are kept by co-operatives and submitted to him, and providing a decent 'burial' for societies which fail. It appears that the Department has assumed a supervising and controlling role which is ultra vires.

It seems clear, therefore, that the role of the government in the formation, management, and overall development of these co-operatives has been central and of great importance. Their success or failure, as the

case may be, reflects the success or failure of the Central Government policy.

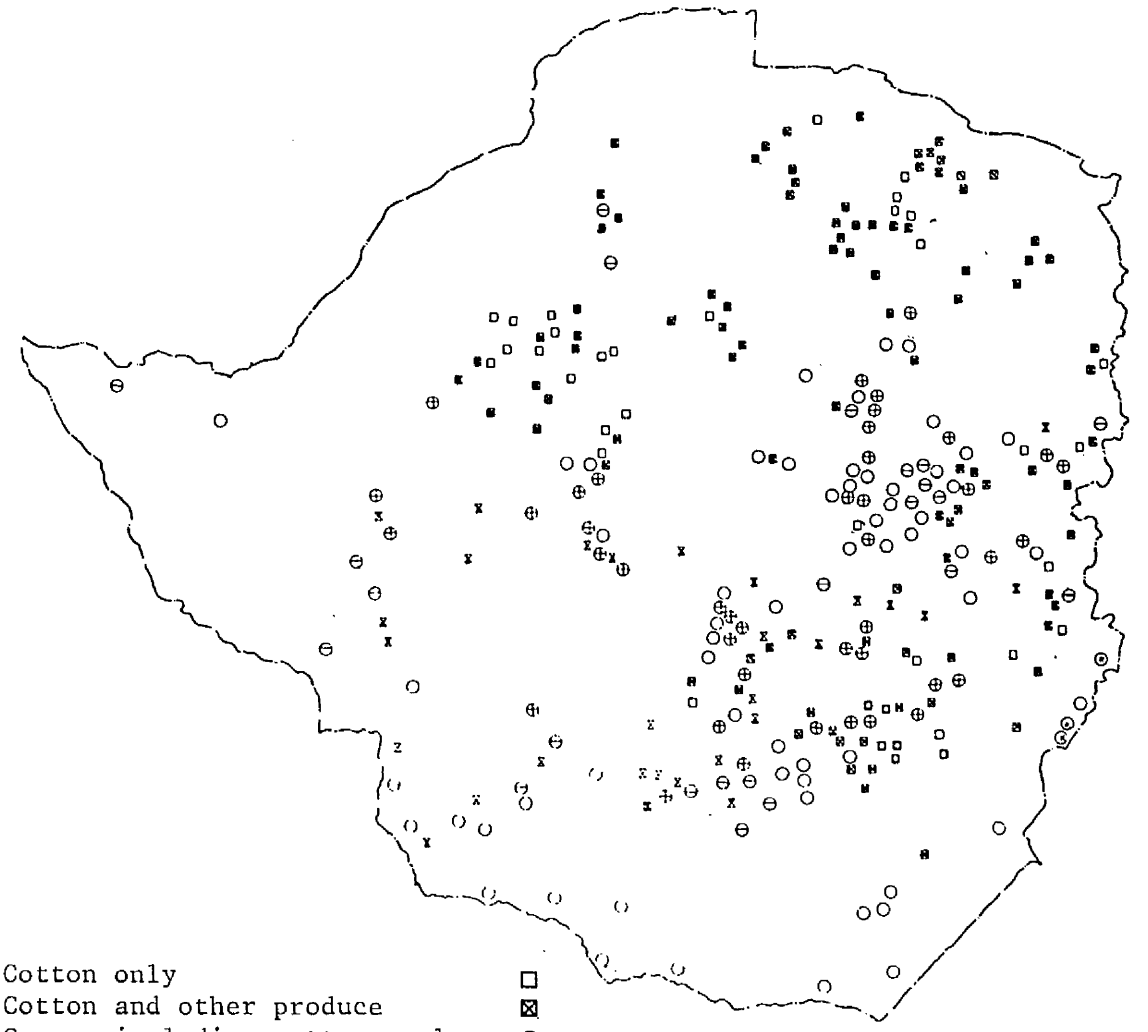
3.02 Growth and Distribution

After the promulgation of the Co-operative Societies Act on the 1st June, 1956 the Registrar of Co-operatives registered the first African agricultural co-operative society in the Chitombogwizi Division of the former African Purchase Land, in Mashonaland West (Figure 3.8), on the 15 October, 1956. By September 1959, over ten societies were registered - all in the former African Purchase Lands. The first society to be registered in the Communal Lands was that for plot-holders in Nyanyadzi Irrigation Scheme, in Manicaland Province, on the 28 September 1959. The first dry-land co-operative society in the Communal Lands was registered on the 30 April 1960, in Madziwa Communal Land, in Mashonaland Central Province. Here it must be noted that two of the first three co-operatives in the three different land categories emerged in agro-ecological region II and the other in region III. These three societies are also located in regions that have sufficient and reliable transport communication with the main urban centres (Figure 3.1). Between 1956 and 1961, growth was rapid. By December 1961, there were 38 co-operative societies, with a total membership of 3,460 farmers. The majority of these farmers were in the former African Purchase Land. By the end of that year, things had gone so well that the Registrar, Dinnis, was even able to claim that the "social and educational angles of co-operatives were beginning to emerge". He claimed that the African was learning how to conduct meetings, to follow proper methods of accountancy, to handle cash and "most important of all, how to do things for himself and his fellow farmers on the right and proven lines with his own capital"[7]. This growth was due to two factors. First, the supplies of such farm input items as empty grain bags, twine and fertilizers on credit had attracted many

farmers to join and/or form co-operative societies. Secondly, the close personal supervision exercised over the societies by Dinnis himself accounted for the efficient operation of these early societies, thereby enhancing their attractiveness to potential members, and their economic credibility to both existing and potential creditors and to suppliers of inputs.

Table 6.1 gives a temporal distribution of agricultural co-operative societies in Zimbabwe. As already noted, growth was phenomenal during the decade 1960 to 1970 for various reasons which will be discussed later in this chapter. While during this period there were annual registrations of up to 57 new societies (1965), there has been a marked decline in the annual formation of new societies since 1970. For example, the average annual formation rate of new societies between 1970 and 1980 is only four, which is eight times less than the average of the proceding decade. There are four major reasons responsible for this slowing down. First, many members resented the credit policies which demanded that the peasants pledge their livestock, especially cattle, as collateral security. Secondly, the formation of non-government sponsored agricultural co-operatives - for instance, the Association of Master Farmers' Clubs and the Catholic Association Agricultural Co-operatives, whose services were regarded by some peasants as more appropriate for their needs and interests - were attracting many potential members away from these marketing and supply co-operatives. Thirdly, there was a growing resentment among an increasing number of Africans against any projects initiated, sponsored and run by the then minority Government. Fourthly, the escalating liberation war disrupted the normal functioning of many activities in the country. The formation and running of these co-operatives was equally affected.

ZIMBABWE: DISTRIBUTION OF GOVERNMENT SPONSORED COOPERATIVES




*Source: Tribal Areas of Rhodesia Research Foundation, 1974.*

Fig. 6.2

Table 6.1 Growth and Temporal Distribution of Primary Co-operatives.

| Year | No. of Societies | Membership | Share Capital | Turnover |
|---|---|---|---|---|
| 1956 | 2 | 187 | Z$ 748 | Z$ 842 |
| 1957 | 6 | 398 | 1,610 | 62,956 |
| 1958 | 12 | 765 | 3,080 | 70,154 |
| 1959 | 14 | 1,206 | 4,880 | 111,160 |
| 1960 | 21 | 1,830 | 7,292 | 143,974 |
| 1961 | 38 | 3,460 | 12,712 | 441,038 |
| 1962 | 52 | 4,897 | 16,818 | 506,280 |
| 1963 | 67 | 6,280 | 20,372 | 404,116 |
| 1964 | 110 | 8,937 | 27,098 | 632,966 |
| 1965 | 169 | 14,742 | 40,716 | 1,258,932 |
| 1966 | 213 | 19,342 | 52,034 | 1,844,644 |
| 1967 | 236 | 22,543 | 61,028 | 2,284,534 |
| 1968 | 257 | 24,416 | 64,630 | 1,586,074 |
| 1969 | 267 | 26,185 | 68,058 | 2,445,382 |
| 1970 | 283 | 27,397 | 73,413 | 2,000,720 |
| 1971 | 288 | 30,592 | 38,390 | 3,045,699 |
| 1972 | 292 | 33,110 | 89,828 | 4,386,142 |
| 1973 | 294 | 35,512 | 97,370 | 3,767,630 |
| 1974 | 292 | 37,991 | 104,537 | 5,984,583 |
| 1975 | 310 | 39,675 | 107,988 | 4,934,829 |
| 1976 | 328 | 41,258 | 110,490 | 5,260,143 |
| 1977 | 327 | 40,996 | 110,942 | 3,494,029 |
| 1978 | 326 | 41,132 | 108,365 | 3,321,694 |
| 1979 | 326 | 40,630 | 108,766 | 3,525,410 |
| 1980 | 331 | 44,863 | 126,717 | 14,744,101 |

Source: Report of the Director of Marketing and Co-operative Services, Ministry of Agriculture, for the year 1980. (Annexure B)

Figure 6.2 shows the geographical distribution of primary agricultural co-operative societies in 1981. The societies are shown according to the functions they perform. A close examination of the spatial distribution of these co-operative societies in Figure 6.2 reveals some interesting patterns, namely

(a) The 'coffee only' co-operative societies are found in Manicaland Province;

(b) The 'cotton only' co-operative societies are found in Gokwe district of the Midlands Province, in Kadoma district of Mashonaland West Province, and in the Chipuriro-Centenary-Darwin area of Mashonaland Central Province;

(c)There are no 'livestock only' co-operative societies in the three Mashonaland Provinces (Figure 3.8); and

(d) There are no 'cotton' co-operative societies in the two Matabeleland Provinces (Figure 3.8).

The explanation for the emergence of these patterns is agro-ecological. For example, Manicaland Province is the only area with factors best suited for the production of coffee. Those districts with 'cotton only' co-operative societies are endowed with some of the best cotton-growing conditions. The Mashonaland Provinces are so well suited for the production of crops that it would be uneconomic for the peasant farmers in these provinces to be concentrating on livestock only as is the case in many parts of Matebeleland and Masvingo Provinces. Cotton production is not profitable in the drier provinces of Matebeleland and, therefore, the co-operative societies in Matebeleland do not deal with cotton at all.

Of the 331 co-operative societies registered under Chapter 193 for agricultural marketing and supply, 58 are in commercial farming areas, with 55 of them serving former Purchase Area farmers and only 3 serving large-scale commercial farmers. Of the remaining 273, 27 are situated in irrigation areas serving the plot-holders, and the rest, 246, are in dry-land Communal Areas. Table 6.2 gives the statistical details relating to the provincial and regional distribution and the share capital of these societies. This Table shows that the Midlands and Masvingo Provinces with

80 each have the largest number of co-operative societies, and Mashonaland Central Province has the largest number of co-operative farmers - 9,305 members. Yet Manicaland Province has the largest share capital of Z$39,376 due to the huge contribution of Z$20,564 from the co-operatives in the Rusape area. There were two reasons given by officials of the Department of Marketing and Co-operatives for such an impressive contribution by the co-operatives from the Rusape region. They told me that the Rusape area societies had a long history of success, and that the functioning of co-operatives in this area had not been seriously disrupted by the liberation war. It does not seem, therefore, that the number of co-operative societies in an area nor the size of the membership in a society necessarily relates to the amount of share capital.

It must also be noted that the distribution of co-operative societies in the Manicaland, Midlands and Masvingo Provinces is scattered throughout the province, whereas in the Mashonaland and Matebeleland Provinces the pattern shows a high concentration in one or two areas. The explanation given by both the agricultural extension assistants and the co-operative officers and assistants for this pattern is that the peasant farmers in the provinces of Manicaland, Midlands and Masvingo had a long history of orderly organisation since the early days of Alvord's agricultural extension and demonstration. The Registrar of Co-operatives has, therefore, always been more inclined to grant permission for the formation of new societies by groups of farmers from these provinces than he has been to farmers from the rest of the country.

Table 6.2 Provincial and Regional Distribution of Co-operatives, Membership and Share Capital

| Provinces | Regions | No. of Primary Societies | | | Total | Membership | Share Capital |
|---|---|---|---|---|---|---|---|
| | | Commercial Areas | Communal Lands | In Irrigation Areas | | | |
| MANICALAND | Mutare | 1 | 2 | 2 | 5 | 1,602 | 24,159 |
| | Chipinge | 3 | 3 | 5 | 11 | 1,795 | 8,795 |
| | Rusape | 7 | 10 | 1 | 18 | 3,454 | 20,564 |
| | Inyanga | 1 | 9 | | 10 | 1,772 | 5,858 |
| Provincial Total | | 12 | 24 | 8 | 44 | 8,623 | 39,376 |
| MASHONALAND CENTRAL | Bindura | 1 | 23 | - | 24 | 5,113 | 10,256 |
| | Umvukwes | - | 31 | - | 31 | 4,192 | 9,568 |
| Provincial Total | | 1 | 54 | | 55 | 9,305 | 19,824 |
| MASHONALAND EAST | Harare | 3 | 10 | - | 13 | 1,803 | 4,272 |
| | Murewa | 3 | 11 | - | 14 | 1,876 | 4,374 |
| Provincial Total | | 6 | 21 | - | 27 | 3,679 | 8,646 |
| MASHONALAND WEST | Chinhoyi | - | 10 | - | 10 | 2,527 | 5,384 |
| | Kadoma | 2 | 4 | - | 6 | 1,063 | 2,510 |
| Provincial Total | | 2 | 14 | - | 16 | 3,590 | 7,894 |
| MATABELELAND NORTH | Bulawayo North | 4 | 5 | 2 | 11 | 1,176 | 3,288 |
| Provincial Total | | 4 | 5 | 2 | 11 | 1,176 | 3,288 |
| MATABELELAND SOUTH | Bulawayo West | 1 | 3 | 4 | 8 | 634 | 1,844 |
| | Gwanda | 1 | 1 | 8 | 10 | 1,832 | 3,816 |
| Provincial Total | | 2 | 4 | 12 | 18 | 2,466 | 5,660 |
| MIDLANDS | Kwekwe | - | 6 | - | 6 | 463 | 1,200 |
| | Chivhu | 9 | 9 | 2 | 20 | 1,106 | 3,125 |
| | Gweru Central | 3 | 16 | - | 19 | 1,599 | 3,666 |
| | Zvishavane | 2 | 11 | 1 | 14 | 1,383 | 3,188 |
| | Gokwe North | 2 | 19 | - | 21 | 2,900 | 9,779 |
| Provincial Total | | 16 | 61 | 3 | 80 | 7,451 | 20,958 |
| MASVINGO | Masvingo East | 2 | 14 | - | 16 | 2,916 | 6,484 |
| | Masvingo West | 10 | 17 | 2 | 29 | 2,599 | 6,731 |
| | Chiredzi | 1 | 7 | 3 | 11 | 1,013 | 2,594 |
| | Gutu | 2 | 22 | - | 24 | 2,045 | 5,262 |
| Provincial Total | | 15 | 60 | 5 | 80 | 8,573 | 21,071 |
| TOTAL All Provinces | | 58 | 243 | 30 | 331 | 44,863 | 126,717 |

## 4. MODE OF OPERATIONS AND SERVICES

When the Native Production and Trade Commission of 1944 recommended the establishment of African agricultural co-operatives, they had a number of services in mind which they felt could be catered for by these co-operatives. The present research identified the following as some of the most immediate ones

(i) the supply, preferably on credit, of the necessary agricultural inputs of seed, fertilizer, pesticides and capital equipment - implements and tools;

(ii) the securing of access to credit facilities and services that enable farmers to acquire the input items;

(iii) the preparation, delivery and marketing of the farmers' surplus to appropriate Marketing Boards; and

(iv) the provision of sundry consumer services, preferably on credit, but definitely at reduced prices.

The services which the co-operatives therefore designed to cater for these and related requirements.

### 4.01 Farm Inputs

The introduction of modern farming techniques by the agricultural extension demonstrators made many farmers increasingly dependent on outside supplies. For example, the need to preserve soil fertility and/or increase yields led to an increased use of manure. But as the supply of natural manure became progressively insufficient due to the general reduction in peasant livestock, the use of artificial fertilizers to supplement this meagre supply became imperative. The agricultural extension service also discouraged the use of unselected seeds from the farmers' granaries. There has been an increasing demand for new hybrid seeds. As the private rural trader, apart from charging prohibitive prices

on his supplies, has always been unable to supply appropriate inputs, it is necessary that an alternative, efficient and economic supply system be instituted. The co-operative society has been seen as such alternative channel.

The peasant farmers who intended to market their grain surplus had problems in securing empty bags because they did not have money to pay cash before they had sold their produce, and nobody was prepared to lend them bags. The first service the early co-operative societies rendered the farmers was the provision of grain bags to farmer-members on credit. Today a typical co-operative society buys, stocks and sells to farmers, usually on credit, small quantities of such inputs as seeds, fertilizers, pesticides, a roll or two of wire, and occasionally an ox-cart. Many co-operative societies also stock and sell, at reduced prices, agricultural hardware, some window and door frames, and household basic necessities such as salt in bags and cooking oil and paraffin in bulk. Pitiful though the quantities of stock usually seem to be, it must be realised that this input service attempts to fill an important need of farmers in these remote farming areas where no other institution holds stocks of farm input items.

Table 6.3 gives an idea of input turnover on selected items handled by co-operative societies in a normal year.

Table 6.3 Input Turnover for 1974

| Item | Total Sold in Z$ | Average per Society Z$ |
|---|---|---|
| Fertilizers | 331,000 | 1,100 |
| Seed | 155,000 | 520 |
| Agricultural Hardware | 121,000 | 400 |
| Pesticides and Stock feeds | 170,000 | 570 |
| Bags | 128,000 | 430 |
| Total | Z$905,000 | Z$3,020 |

Source: Report of the Director of Marketing and Supply Co-operative Services, 1974,

It must, however, be noted that the 'average input turnover per society' is, of course, misleading because it includes both the few really successful and the inactive societies. In fact, only fifty societies were successful, and they account for more than half of these turnover figures. Nevertheless, the table gives some picture of the possible turnover and activity of a typical society.

4.02 Credit Facilities

By the early 1960s it had become abundantly clear that, despite continuous efforts by agricultural extension services and the co-operative services, total peasant farm production was static and disappointing. Basic skills in improved farming; the availability of the necessary inputs at reasonable prices and stocked by the co-operative societies; and the provision of marketing services all were in themselves inadequate to improve peasant production. The farmer needed capital which would enable him to utilize his skills, to secure these necessary inputs and to avail himself of the services offered. But most of the peasant farmers have not got that capital.

It was shown that a hectare of maize properly farmed would not only produce sufficient basic subsistence for an average family of six to seven persons but also a clear surplus for sale. At 1981/82 prices, this hectare of maize would require seed, fertilizers, lime, and pesticides costing Z$150. On the same basis, a hectare of cotton might cost about Z$200.

It has been shown, elsewhere in this thesis, that bags are generally supplied to societies on credit. Fertilizers are often supplied on 30 per cent credit terms, but seldom more. All other items are delivered against cash payment. Yet almost all have to be available to farmers by October/November and cash only reappears from the sale of crops in June/July of the following year. The Whitsun Foundation estimated that a typical society

requires approximately Z$1,500 in cash to cover the delivery of these input items. Yet evidence from the Department of Marketing and Co-operatives shows that the paid-up share capital of societies is generally between Z$260 and Z$650 per 'average' society.

Agricultural credit, therefore, seems an important element in the development of peasant farming and general progress in the agrarian sector of the economy. This was equally realised by the Southern Rhodesian officials who decided by the early 1960s that massive injections of capital and credit into peasant agriculture would enhance farm production. Much of the success of capital, however, depends on the ways in which the farmer can gain access to credit facilities and the degree of supervision of his utilisation of that credit. There are three sources from which agricultural credit has been made available to the peasant farmers who are operating within Government-sponsored agricultural co-operative societies, namely government institutions, commercial corporations, and rural co-operative credit unions.

The first statutory institution to offer dry-land peasant farmers credit facilities for the purchase of inputs was the African Development Fund which, from 1958, loaned funds directly to co-operative members by using the co-operative as an agency. The co-operatives were paid a xservicing fee for distributing the inputs and goods supplied against such loans. The African Development Fund also lent funds to co-operative societies on a communal basis. The co-operative members were made jointly and severally responsible for the loans to the extent of the value of members' share in the limited liability society. Table 6.4 gives the funds loaned to co-operatives between 1958 and 1963. It also shows an impressive rate of repayment. The relative successful experience during this initial period and the Government belief that the injection of working capital into peasant agriculture would stimulat e continued and increased production led to an increase in the provision of funds for

peasant credit, and also to the birth in 1944 of the second parastatal organisation, the Agricultural Loan Fund, which was created to administer the expanded loans scheme. This, in turn, resulted in a proliferation of new societies during the expansion period of 1960 to 1968. The number of societies and the membership increased thirteen and twelve times respectively, (Table 6.1).

Table 6.4 African Development Fund Loans to Co-operative Societies, 1958-1963.

| Season | Loan Granted (Z$) | Percentage Repayment | |
|---|---|---|---|
| | | By 1962 | By 1964 |
| 1958/59 | 4,904 | 97.5 | 99.2 |
| 1959/60 | 19,942 | 85.9 | 98.8 |
| 1960/61 | 25,042 | 82.1 | 91.7 |
| 1961/62 | 40,052 | 83.0 | 89.5 |
| 1962/63 | 21,188 | N/A | 76.3 |

Source: Annual Reports, Marketing and Supply Co-operative Services

The Agricultural Loan Fund was directed by a committee, chaired by the Registrar of Co-operatives and assisted by representatives from the Ministries of Agriculture, Finance and Internal Affairs. Loans were issued through two channels, namely: the co-operative movement, which absorbed up to 70 per cent of the funds; and the District Loans Committees which dealt with individual applicants and were administered by District Commissioners and agricultural extension officers. Loans were granted lavishly and widely. But there was no adequate supervision of the utilisation of the funds and of the recovery procedures due to insufficient field staff because the Government had not provided field staff for the scheme. The Fund had been instructed to use co-operative staff and facilities, as well as the agricultural extension assistants. The latter were subsequently withdrawn because their service image was becoming tarnished by having to 'dun' loan defaulters. Following three successive poor cropping seasons

during the period 1964 and 1968, many farmers were unable to meet their repayment commitments. By 1965 there were 9,500 peasants in arrears with a total of Z$120,388 and by 1967, 13,943 peasants were in arrears with Z$472,062. Details of loans made by the Fund for the period 1964-1979 are unfortunately not available on a standardized basis because, according to present Government sources, many of the records have been destroyed. Nevertheless, Table 6.5 summarizes outstanding balances owing to the Fund at the end of each year and recoveries by category of loan disbursement channel and loan type for the period 1965/66 to 1968/69. Outstanding debts at the beginning of the 1968/69 season totalled Z$1,223,000, of which 71 per cent were short-term, 23 per cent medium-term and 6 per cent long-term. This poor level of repayments almost brought about the demise of the co-operative movement as it became heavily indebted to the Agricultural Loan Fund. With the problems facing the Agricultural Loan Fund and the Co-operative movement, the Government decided that both should be transferred to the Ministry of Internal Affairs which was noted for its tough handling of the peasantry.

This transfer to the Ministry of Internal Affairs led to the adoption of a new approach to the provision of credit through co-operatives. Communal loans to members of co-operatives were no longer issued, with one exception in the Gokwe District. In order to safeguard credit disbursements, individual farmers, when borrowing, were required to sign stop orders in favour of the Agricultural Loan Fund. In certain cases, peasant farmers were required to pledge cattle as collateral. This move was most unpopular and objectionable to most farmers. As a result, demand for credit apparently dropped after the introduction of these more tightly controlled lending conditions. Weinrich (1975) noted that

> "only 21 per cent of peasants who had taken out loans in 1968 did so in 1969, and the total money paid out in loans dropped from £233,000 to £48,965" (3)

which is a drop of 79%. Table 6.6 shows that loan issues to co-operatives

Table 6.5 Agricultural Loan Fund Loans Outstanding and Recoveries 1965-1969

| Year | Duration | Co-operatives | | | District Loan Committees | | | Total | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | Balance o/s $ 000 | Recoveries $ 000 | Recovery % | Balance o/s $ 000 | Recoveries $ 000 | Recovery % | Balance o/s $ 000 | Recoveries $ 000 | Recovery % |
| 1965/66 | Short | 142 | 89 | 63 | 163 | 73 | 45 | 305 | 162 | 53 |
| | Medium | 60 | 32 | 53 | 50 | 22 | 44 | 110 | 54 | 49 |
| | Long | - | - | - | 46 | 27 | 59 | 46 | 27 | 59 |
| | Total | 202 | 121 | 60 | 259 | 122 | 47 | 461 | 243 | 53 |
| 1966/67 | Short | 439 | 295 | 67 | 205 | 104 | 51 | 644 | 399 | 62 |
| | Medium | 143 | 77 | 54 | 76 | 29 | 38 | 219 | 106 | 48 |
| | Long | - | - | - | 56 | 30 | 53 | 56 | 30 | 53 |
| | Total | 582 | 372 | 64 | 337 | 163 | 48 | 919 | 535 | 58 |
| 1967/68 | Short | 532 | 321 | 60 | 165 | 77 | 47 | 697 | 398 | 57 |
| | Medium | 168 | 71 | 42 | 89 | 35 | 39 | 257 | 106 | 41 |
| | Long | - | - | - | 64 | 37 | 58 | 64 | 37 | 58 |
| | Total | 700 | 392 | 56 | 318 | 149 | 47 | 1,018 | 541 | 53 |
| 1968/69 | Short | 671 | n/a | - | 202 | n/a | - | 873 | | |
| | Medium | 180 | n/a | - | 96 | n/a | - | 276 | | |
| | Long | - | n/a | - | 76 | n/a | - | 76 | | |
| | Total | 851 | | | 374 | | | 1,225 | | |

Source: Marketing and Co-operative Services Section.

Table 6.6 Agricultural Loan Fund Loans to Co-operatives 1968/69-1974/75

| Season | Short Term Loans | | Medium Term Loans | | Total |
|---|---|---|---|---|---|
| | Agency | Communal | Agency | Communal | |
| | $ | $ | $ | $ | $ |
| 1968/69 | 120,537 | 147,064 | 10,794 | 17,691 | 296,086 |
| 1969/70 | 54,402 | 60,193 | 500 | 2,362 | 117,457 |
| 1970/71 | 9,301 | 80,113 | - | 14,948 | 104,362 |
| 1971/72 | 20,568 | 12,931 | - | 11,963 | 45,462 |
| 1972/73 | 45,597 | 817 | - | 2,200 | 48,614 |
| 1973/74 | 3,177 | 66,734 | - | - | 69,911 |
| 1974/75 | 10,027 | 140,551 | 4,871 | - | 155,449 |

Source: Marketing and Co-operative Services Section.

for the period 1969/70 to 1974/75 were considerably below the 1964 to 1969 levels. It also shows that medium and long term loans were gradually phased out. This trend was maintained until the birth of an independent Zimbabwe in 1980. Table 6.7 gives data for loan advances during the period 1975/76 to 1978/79. The annual average recovery of debts during this period was, according to Government sources, a mere 32 per cent. This shows that the co-operative system of loan recovery has indeed been a failure.

Space does not permit this thesis to recount in much detail the credit facilities and services proferred to peasant farmers by the private, specialized agricultural organisations. Let it suffice to mention briefly the credit services provided by the African Loan and Development Corporation and by the co-operative credit unions and savings clubs. The African Loan and Development Corporation, a philanthropic lending body, was formed in 1961 as a private limited company under the name of African Loan and Development Company Limited with a paid-up share capital of Z$275,000. It began lending money for seed and fertilizer to peasant farmers in 1962. The corporation provided short-term seasonal loans to co-operative societies purely on a communal basis, under a guarantee from the Government. For four years things went pretty well. But soon many peasants failed to repay their loans, and between 1966 and 1968 the Company incurred serious losses. The shareholders were consequently forced to make appeals to Oxfam for assistance. Loans of Z$66,000 and a grant of Z$100,000 were subsequently provided on condition that the company changed its legal status into a non-profit making Trust. A new entity, the African Loan and Development Trust Holdings, was therefore formed in 1969. This new Trust re-organised its management structure and hence improved its debt recovery efficiency or capacity. By 1978, when the Trust folded up, it had increased its disbursements from Z$200,000 to 685 farmers to an excess of Z$1 million to 1,843 peasant farmers.

Table 6.7 Agricultural Loan Fund Loan Issues by Type of Loan 1975/76 to 1978/79

| Year | Loan Type | Co-operatives Loan $000 | District Loan Committees Loan $ 000 | Total Loan $ 000 | Total No. | Total Average Loan $ | Total % Total |
|---|---|---|---|---|---|---|---|
| 1975/76 | Short | 159 | 31 | 190 | n/a | - | 95 |
| | Medium | 3 | 4 | 7 | n/a | - | 4 |
| | Long | - | 2 | 2 | n/a | - | 1 |
| | Total | 162 | 37 | 199 | - | - | 100 |
| 1976/77 | Short | 78 | 71 | 149 | 920 | 162 | 94 |
| | Medium | - | 9 | 9 | 12 | 750 | 6 |
| | Long | - | - | - | - | - | - |
| | Total | 78 | 80 | 158 | 932 | - | 100 |
| 1977/78 | Short | 107 | 47 | 154 | 890 | 172 | 95 |
| | Medium | 5 | 3 | 8 | 11 | 727 | 5 |
| | Long | - | - | - | - | - | - |
| | Total | 112 | 50 | 163 | 901 | - | 100 |
| 1978/79 | Short | 130 | 29 | 159 | 1,174 | 135 | 100 |
| | Medium | - | - | - | - | - | - |
| | Long | - | - | - | - | - | - |
| | Total | 130 | 29 | 159 | 1,174 | - | 100 |

Source: Former Ministry of Internal Affairs

Co-operative credit unions were initially started by the Catholic Church in 1963 as Savings Clubs. Growth of the Savings Clubs during the first years was relatively slow. By 1968 only thirty clubs with a membership of 2,000 had been established. By 1976, when normal activities were disrupted by the war, there were 501 Savings Clubs with an estimated membership of slightly over 20,000. Table 6.8 shows that the first four of these clubs became credit unions in 1966, and by 1970 only fourteen clubs had qualified to register as credit unions. Throughout the 1970s, the credit unions have never been above twenty. These credit unions assisted members with finance for the purchase of seed, fertilizer, pesticides and capital equipment, especially ploughs. Money could also be drawn for paying children's school fees and for paying bridewealth (roora). Savings Clubs operated on the same pattern as Credit Unions; the ordering and delivery of inputs, and the marketing of the members' surplus were all done in bulk collectively. There has been no acute debt recovery problems within credit unions and savings clubs because the members can only withdraw money or get financial assistance on the basis of their savings lodged with the union or the club, as the case may be. Any loan in excess of the borrower's savings may only be granted on the recommendations of a guarantor to the effect that repayment is assured.

Table 6.8 Growth of Co-operative Credit Unions, 1966 to 1980.

| Year | Societies in Operation | Membership | Share Capital in Z$ |
|---|---|---|---|
| 1966 | 4 | 347 | 88,000 |
| 1967 | 4 | 694 | 346,000 |
| 1968 | 7 | 710 | 350,000 |
| 1969 | 13 | 1,553 | 776,000 |
| 1970 | 14 | 1,861 | 930,000 |
| 1971 | 16 | 1,856 | 925,000 |
| 1972 | 19 | 2,129 | 1,064,000 |
| 1973 | 19 | 2,094 | 1,047,000 |
| 1974 | 18 | 2,019 | 1,015,000 |
| 1975 | 19 | 1,933 | 967,000 |
| 1976 | 20 | 1,738 | 1,003,000 |
| 1977 | 19 | 1,623 | 947,000 |
| 1978 | 17 | 1,502 | 869,000 |
| 1979 | 16 | 1,724 | 874,000 |
| 1980 | 18 | 2,023 | 1,534,000 |

Source: Marketing and Co-operative Services Section, 1981.

### 4.03 Marketing Facilities

To appreciate the importance and success or the effectiveness of co-operatives in the marketing of peasant produce it is necessary to recognise two facts. First, up to 1965, free enterprise systems dominated the agricultural marketing institution; since then, however, there has been a considerable increase in marketing controls. All the major crops - maize, groundnuts, cotton, soyabeans, wheat, and sorghum - grown and the livestock (cattle and sheep) in Zimbabwe are therefore 'controlled', that is, they are bought by government marketing boards at pre-negotiated fixed prices. The Agricultural Marketing Authority, through its various marketing boards, is the ultimate and monopoly buyer of the major crops and the Cold Storage Commission is the buyer of cattle and sheep. Secondly, the pre-independent (prior to 1980) governments' attitude towards African and European agricultural produce used to differ fundamentally. Hume (1977) wrote that while

large-scale commercial farmers were unequivocally encouraged to produce and closely assisted in selling their produce, peasant farmers were left to fend for themselves in every respect (Quotation 5.19).

It seems obvious, therefore, that some channels which would enable the peasant producers access to the unfavourably sited marketing depots were necessary. The Agricultural Marketing Authority appointed selected African store proprietors as 'approved grain buyers' of the local communities. The Ministry of Internal Affairs was also operating the 'weight and grade' cattle sale pens in the remote Communal Lands (Fig. 5.2). This Ministry also vigorously promoted the co-operatives as the main marketing channel for African agricultural produce. The staff of the Department of Marketing and Co-operatives also strongly believe that the co-operatives should be the sole channel for marketing peasant produce. Consequently, the Department has over the years heavily persuaded the Agricultural Marketing Authority to reduce the number of African stores approved as buyers of controlled crops. They also waged a relentless campaign against the Association of Master Farmers' Clubs in the Masvingo Province who were successfully and efficiently marketing their members' produce directly to the appropriate statutory boards.

Statistical evidence available for the period 1974 to 1980 shows that these Government-sponsored co-operatives handle around 22 per cent of grain and nearly 25 per cent of cotton sold annually by peasant farmers to the government marketing agencies. Table 6.9 gives a detailed account of the produce and livestock marketed through co-operative societies. The Table also shows, on a provincial and regional basis, the annual turnover handled by both the primary and secondary societies in 1980.

Table 6.9 Marketing, Trading and Turnover Statistics Handled by Co-operative Societies in 1980

| Provinces | Regions | No. of Societies | Membership | Produce Marketed | | | Marketing (Z$) | Trading including Services | Turnover (Z$) |
|---|---|---|---|---|---|---|---|---|---|
| | | | | Crops (Tonnes) | Cotton (Tonnes) | Cattle (Head) | | | |
| MANICALAND | Mutare | 5 | 1,602 | 1,276 | - | 153 | 282,838 | 984,987 | 1,267,825 |
| | Chipinge | 11 | 1,795 | 214 | 35 | - | 30,469 | 42,492 | 72,961 |
| | Rusape | 18 | 3,454 | 5,450 | 12 | - | 803,586 | 228,655 | 1,032,241 |
| | Inyanga | 10 | 1,772 | 190 | - | - | 18,835 | 981,390 | 1,000,225 |
| Provincial Total | | 44 | 8,623 | 7,130 | 47 | 153 | 1,135,728 | 2,237,524 | 3,373,252 |
| MASHONALAND CENTRAL | Bindura | 24 | 5,113 | 562 | 16 | - | 260,387 | 1,489,810 | 1,750,197 |
| | Umvukwes | 31 | 4,192 | 852 | 634 | - | 98,938 | 492,325 | 591,263 |
| Provincial Total | | 55 | 9,305 | 1,414 | 550 | - | 359,325 | 1,982,135 | 2,341,460 |
| MASHONALAND EAST | Harare | 13 | 1,803 | 1,052 | - | - | 100,652 | 277,315 | 377,967 |
| | Murewa | 14 | 1,876 | 3,110 | 42 | 141 | 330,318 | 1,162,671 | 1,492,989 |
| Provincial Total | | 27 | 3,679 | 4,162 | 42 | 141 | 430,970 | 1,439,987 | 1,870,956 |
| MASHONALAND WEST | Chinhoyi | 10 | 2,527 | 1,140 | 57 | - | 128,732 | 1,229,615 | 1,358,347 |
| | Kadoma | 6 | 1,063 | 190 | 184 | - | 84,785 | 24,346 | 114,131 |
| Provincial Total | | 16 | 3,590 | 1,338 | 241 | - | 218,517 | 1,253,961 | 1,472,478 |
| MATABELELAND NORTH | Bulawayo North | 11 | 1,176 | 6 | - | 1,022 | 103,977 | 1,543,663 | 1,647,640 |
| Provincial Total | | 11 | 1,176 | 6 | - | 1,022 | 103,977 | 1,543,663 | 1,647,640 |
| MATABELELAND SOUTH | Bulawayo West | 8 | 634 | 46 | - | 162 | 27,857 | 10,622 | 38,479 |
| | Gwanda | 10 | 1,832 | 182 | - | 155 | 43,049 | 28,454 | 71,509 |
| Provincial Total | | 18 | 2,466 | 228 | - | 317 | 70,906 | 39,076 | 109,982 |
| MIDLANDS | Kwekwe | 6 | 463 | 179 | 7 | - | 19,694 | 1,232 | 20,926 |
| | Chivhu | 20 | 1,106 | 545 | - | - | 51,611 | 3,575 | 55,186 |
| | Gweru Central | 19 | 1,599 | 1,638 | 1 | - | 146,860 | 1,523,979 | 1,670,839 |
| | Zvishavane | 14 | 1,383 | 364 | - | - | 33,812 | 17,366 | 51,178 |
| | Gokwe North | 21 | 2,900 | 63 | 768 | - | 279,353 | 10,844 | 290,197 |
| Provincial Total | | 80 | 7,451 | 2,789 | 776 | - | 531,330 | 1,556,996 | 2,088,325 |
| MASVINGO | Masvingo | 16 | 2,916 | 1,128 | 9 | 191 | 254,734 | 493,746 | 748,480 |
| | Masvingo West | 29 | 2,599 | 822 | 2 | - | 231,127 | 648,498 | 879,625 |
| | Chiredzi | 11 | 1,013 | 349 | 2 | - | 8,031 | 35,613 | 43,644 |
| | Gutu | 24 | 2,045 | 823 | - | - | 85,251 | 83,007 | 168,258 |
| Provincial Total | | 80 | 8,573 | 3,122 | 13 | 191 | 579,143 | 1,260,864 | 1,840,007 |
| TOTAL All Provinces | | 331 | 44,863 | 20,189 | 1,669 | 1,824 | 3,429,896 | 11,314,205 | 14,744,107 |

Source: Report of the Director of Marketing and Co-operative Services, for the year 1980 (Annexure D).

The marketing services provided by the co-operatives are many and diverse. But the following six are the most important. First, the provision of empty grain bags, on credit, was one of the first services offered by co-operatives. The peasant producers have no capital which would enable them to acquire empty grain bags needed for bagging their surplus produce for marketing. To solve this problem the Registrar of Co-operatives succeeded in negotiating the supply, on credit to co-operative societies, of grain bags by bag-manufacturing companies. The co-operatives then distributed these bags to their members, who would then pay for them after the sale of their produce. This service has been going on since the formation of these co-operatives.

The second marketing service provided by the co-operatives to their members is the assembly and bulking of the small lots of peasant produce. After shelling and packing their produce into bags, some peasant producers deliver their crops to central points whence it will eventually be taken to the appropriate marketing agency. But most of them would have their produce collected by the co-operative societies, some of which own their own transport.

Thirdly, on arrival at the society's central point, the quality of the produce has to be determined by grading, and the quantity measured to ensure the correct weight as recommended by the government marketing boards. The final bagging is then carried out. The grading, weighing and bagging service requires specialized skill which can ascertain such characteristics as the variety of a crop, its size, colour, ripeness, moisture content and infestation with dirt or insects. Very few, if any, peasants would be able to perform this service. Even if some could do it, very few peasant farmers can afford individual ownership of weighing scales. The skills of co-operative staff are therefore very vital in the execution of these activities.

Fourthly, when the co-operative society has collected, graded, weighed and bagged all the members' produce it then arranges for transport to deliver the crop to the Marketing Board. The individual cultivators' marketable surplus of the vast majority of Communal Lands farmers is so small that it is uneconomic for any one producer to transport his crops alone. Moreover, transport costs involved cannot easily, if ever, be met by an individual peasant producer. Co-operative marketing through the collective hiring of transport is the only viable economic proposition available to individual peasant farmers.

In Zimbabwe, communication and transport between the marketing depots, mainly sited in urban centres, and most parts of the rural Communal Lands are poor and inefficient. Most peasants are therefore in an extremely difficult position to be able to communicate, on an individual basis, with the marketing boards about when they are sending in deliveries of their produce. The co-operative society has the resources and facilities to give accurate and ample notice of the delivery of the produce to appropriate Marketing Boards.

The collection of proceeds and distribution of net cash to the co-operative members after deductions of prior claims is the sixth marketing service provided by the co-operative societies. When all the deliveries of the members' produce are made to the Marketing Boards, a cheque or cheques are made to the co-operative society. The society then deducts what each farmer owes the society in terms of handling charges and the input items that would have been supplied to individual farmers on credit. When all the financial book work is completed, the society finally pays the members the net profit each farmer will have made on the sale of his/her produce.

Nearly 90 per cent of the peasant farmers in the sample, who had been members of the Government-sponsored co-operatives, stated that these six services were most valuable in encouraging peasant farmers to grow

cash crops. The other 10 per cent believe that the services are very vital but feel that their effectiveness and usefulness are hampered by too much paternalistic interference from the co-operative officers and assistants. Nonetheless, it cannot be denied that these services are helpful to the majority of the co-operative members who are struggling in the face of unfavourable conditions to enter the market economy.

### 4.04 Other Services

It has already been mentioned (4.01) that many co-operative societies stock and sell, at reduced prices, some household basic consumer goods. Before being disrupted by the liberation war, some societies, notably the Chivhu and Sebungwe Unions, were providing an impressive service to the farmers and the families. At its peak in 1974, the Midlands Province had a trading turnover of Z$467,726 out of a countrywide total of Z$1,457,958.

Some co-operative societies also own lorries, land rovers and cars which they use in transporting the members' crops and in providing sundry services in the delivery of goods from one point to another. This cuts down the costs of hiring transport remarkably. Several societies also own communal farm equipment which is used collectively by the members. Two societies the author visited in the Gokwe/Umniati area run communal tractors successfully. Several societies in the Manicaland, Masvingo and Mashonaland Provinces operate co-operative maize shellers. Communal ownership and co-operative operation of farm machines, equipment and tools are proving a highly feasible and economically viable co-operative enterprise.

## 5. IMPACT ON PEASANT FARMING

Many people - farmers, government officials and commentators - who were contacted during this research expressed some disappointment with the performance of co-operatives.Some of these people hold strong views

that the amount of money and time invested into the co-operatives have been spent in vain. However, other observers, though critical, maintain that on the whole co-operatives have partially achieved their objectives, and that co-operative farmers' performance has been comparatively better than their counterparts. To assess the validity of these views, it is important to examine the achievements and failures of the co-operatives.

## 5.01 Achievements

> "The chief benefits of these societies and unions are savings on transport and supplies, and increased credit facilities" (4)

This quotation from the Herald (26 May, 1982), may be relevant in highlighting the achievements of the Government-sponsored co-operatives.

Co-operative societies are the only rural institution that stock and supply, on credit, such input items as fertilizer, seeds, pesticides and plough parts. Admittedly, stocks are small, and the lack of working capital and experienced staff causes considerable difficulty in the provision of an efficient service. It has already been mentioned that co-operative societies have been able to secure for their members empty grain bags, which they are able to provide on credit. They have also managed to obtain farm implements and equipment for selling to their members. The provision of the necessary input items has been of remarkable importance in boosting peasant production.

The introduction between 1961 and 1969 of agricultural credit, through the co-operatives, into peasant agriculture is certainly one of the most far-reaching Government attempts in generating self-sustaining growth in the African sector. Although total loans were small relative to total potential demand, there was a substantial increase of 76 per cent in peasant agricultural output from 1964 to 1969, measured in 1964 prices. The co-operative societies also encouraged the formation of savings clubs and co-operative credit unions which, in turn, managed to generate their

own small capital for the procurement of the agricultural input items. The members have been able to obtain loans from this source as well. Although the co-operative societies experienced problems in recovering some of the loans, the impact of credit on peasant agriculture has undoubtedly been impressive.

The co-operative marketing of the members' produce has been claimed to be one of the greatest achievements of the co-operatives in Zimbabwe. The co-operative societies have enabled peasant farmers direct access to statutory marketing boards. This and the provision of such services as the collection, bulking, grading, weighing, bagging and the delivery of the peasants' produce to appropriate Marketing Boards have greatly encouraged peasant producers to grow more cash crops, and hence helped Africans to enter the money economy.

Co-operative societies have also been helpful in providing a good range of consumer goods at moderate prices to the members in isolated rural areas. The twenty or so co-operative stores identified during this research have helped to protect peasants' interests against the prohibitive prices charged by rural business shop-owners. In addition to the provision of this much-needed service, co-operative ownership of these stores has provided valuable experience of business management to those members who are aspiring to start their own businesses.

Transport facilities necessary for the delivery of the members' produce to the appropriate marketing depots have always been one of the most constraining problems in the transformation of peasant agriculture. It has already been stated that one or two areas, in the Mashonaland West and Midlands Provinces, successfully operate a fleet of lorries which have dramatically improved the delivery of peasants' crops to the markets.

Co-operative participation in the affairs of the societies has also led to the emergence of new non-traditional leadership. Individuals, who have no obvious links with local chieftainship, but who have an impressive

combination of leadership quality and business sense, have stepped into prominence. This has encouraged many, especially young, peasant farmers to emulate these successful and prominent farmers, thereby enhancing peasant farming competence and efficiency.

5.02 Failures

The overall aim of all Government efforts - of which agricultural co-operation is but one - in peasant farming in the improvement of African agricultural productivity through the adoption and practice of modern farming techniques (Appendix V) demonstrated that, despite 55 years of fairly widespread agricultural extension service, the national level of peasant productivity is still miserably low. Unlike the agricultural extension service, the Government-sponsored agricultural co-operatives (the focus of this chapter) have concentrated their services on a small section of peasant farmers - the co-operative members only - who, in 1980/81, comprised only 6 per cent of the total Zimbabwe farming families. A reading of the above achievements gives an impression that these co-operatives were a real success. It seems fair to say that a good number of the objectives of co-operative (subsection 2.01 above) have been achieved. But the same cannot be truly said of the overall Government aims - improving peasant agricultural productivity and the conservation of soil fertility and resources.

The turnover statistics in the annual reports (Table 6.9) of the Director of Co-operatives seem to tell an impressive success story. Unfortunately, these statistics say little about peasant agricultural productivity per given unit factor of production. Extensive unstructured interviews with 24 Government-sponsored co-operative members conducted during this research revealed that, for the same amount of inputs, the productivity of over 60 per cent of these farmers is considerably lower than that of the same number of ordinary, peasant farmers in the same

areas - Chibi, Goromonzi and Shurugwe districts. Membership figures in the Director's annual reports do not show the rate of de-registration of members due to dissatisfaction with the poor performance of co-operative societies. For example, investigations made during this research in three villages - one in Gororo, Chibi; the second in Banga, Shurugwi; and the other in Rusike, Goromonzi - showed that 62 per cent of 76 farming units had been once members of these Government-sponsored co-operatives, but had lapsed from membership because of disappointment and/or frustration with the "uselessness of the co-operative societies". They claimed that the knowledge and services they obtained from their membership of these societies have not helped in any way to improve their agricultural productivity. Over 37 per cent of the main sample of this research also represents the farmers who used to be members of the Government Co-operatives, but have since resigned and joined non-government co-operatives because of dissatisfaction with government-sponsored co-operatives. The author's personal observations did not find any difference between their farming performance and that of those who have never been members of any farming organisation. It seems safe, therefore, to conclude that Government-sponsored co-operatives have not achieved the desired aim they were formed for. Opinion is divided about the reasons responsible for this failure. According to one Provincial Agricultural Officer,

> "There have been no signs that community farming systems, whether of co-operative or Kibbutz type, are acceptable to the African communities." (5)

Over 78.5% of the co-operative officers and assistants interviewed believed that the prime explanation for the limited success of institutional agricultural co-operation in Zimbabwe lies in the culture, values, attitudes and habits of the rural villagers. Fifty-seven per cent of the agricultural extension assistants interviewed maintained that the failure of agricultural co-operation lies in the peasants' fundamental distrust of externally sponsored initiatives and institutions, especially those coming from the

unpopular white minority Government. A large number of commentators attributed the failure of a co-operative farming to peasants' lack of the basic technical, political and interpersonal skills required in the running of such complex institutions ( Dore, 1971; Hughes, 1974; Hume, 1977; Quick, 1978; Saul, 1971.)

Undoubtedly, there is some truth in these observations. But these explanatory approaches all seem excessively one-sided in that they largely apportion blame for the failure of agricultural co-operation on the behaviour of peasant co-operators while ignoring the fact that this behaviour is significantly influenced by the environment within which the members operate. Co-operative members in Zimbabwe, like anywhere else, respond rationally to incentives and constraints presented to them by the physical, economic, political and socio-cultural environment. The farmers have indeed their own explanations for the failure of these agricultural co-operatives.

Almost all the members of the Government-sponsored co-operatives and ex-members who were contacted during this research were unanimous that the failure of these co-operatives was due to unreliable and inefficient transport facilities, especially during marketing time; it was also due t o what they described as exorbitant handling charges and government levies made on all produce and livestock marketed through co-operative societies, and to appalling delays in the distribution of net cash to the farmers after selling farmers' products. Both current members and ex-members of co-operative societies told me of several incidents throughout the years of delays in transporting grain to the Grain Marketing Board depots due to the failure of co-operative officials to arrange for reliable transport. Some of these delays caused untold losses to the farmers through grain rotting when it was left at picking-up points for a long time. Transport inefficiency also led to delays in livestock delivery to the Cold Storage Commission, which consequently penalized the farmers heavily for their

failure to deliver the promised animals in time. This definitely does not encourage the affected farmers to patronize co-operative societies in the future.

Secondly, a good number of Zimbabwean peasant farmers, both inside and outside the co-operatives, expressed vehement criticism of the exorbitant handling charges for ledger fees and administrative allowances exacted on the members by the co-operative societies. For example, for every bag of grain and every animal sold through the co-operative society the farmer has to pay Z$0.30 and Z$0.50 respectively. In addition to these handling charges co-operative members, like any peasant producers who market their produce and livestock to statutory marketing boards or their agents, have to pay a levy to the African Development Fund, and a mandatory commission for the government auctioneering service. After these deductions and transport costs, Weinrich (1975) has estimated that the co-operative members receive only about 50 per cent of the real value of their produce and livestock. It seems clear why the agricultural marketing and supply co-operatives have not succeeded in transforming peasant farming.

Thirdly, there are widespread complaints from the co-operative members contacted about slow payment of profits to the farmers. The official explanation given for this slowness was that agricultural marketing through the co-operative system requires highly detailed book-work. Each parcel or packet of produce handled by the co-operative society has to be meticulously recorded in both the society's records and those of the union. These lists of detailed individual parcels are sent to the marketing board which will, in turn, send the bulk cheque, together with a detailed record of the amount and the grading achieved by each parcel, back to the co-operative union. The Union then has to break down these returns in order to send an appropriate cash and produce receipt back to farmers through their primary societies. Given such amounts of

bookwork to be done by relatively untrained employees of the Co-operative Unions and the time involved in communicating these records and money, it is hardly surprising that it takes at least three to four weeks for the cheque or cash to get into the hands of a farmer. Yet when the peasant producers market their agricultural products - their main, if not the only source of income - they expect to be paid quickly. Such delays, therefore, are a sure way of dampening peasant aspirations and/or enthusiasm in producing for cash, and hence decelerating the progress of peasant farming.

In addition to all the above explanations given by the government officials, commentators and the peasants themselves, this research has discovered, through its investigations, five reasons responsible for the limited and disappointing achievements made by the agricultural marketing and supply co-operative movement in Zimbabwe. First, it was revealed during interviews with the members of the Department of Marketing and Co-operatives that there is too much government involvement in the day-to-day functioning of co-operatives. Consequently, there is a miserable lack of a sense of ownership of the societies by most members and their committees. Close control exercised by the Department staff on the running of the co-operatives has led the members, as already mentioned, to think that co-operative societies belong to the government. While it is important for the Government to create a positive environment in which nascent co-operative societies may thrive, and while it is advisable for the Government to give support, particularly in the provision of educational and training institutions, to a co-operative movement during its formative years, substantial government intervention, once co-operatives are firmly established is both unnecessary and undesirable. Most of the major shortcomings experienced in the co-operatives seem to stem from this lack of sense of ownership. It was very clear among many co-operators that there is little member loyalty to co-operatives. Members, officials

(especially secretaries) and others whose misdemeanors have so slowed down progress have probably felt that they were outwitting the Government rather than stealing from fellow farmers. Committees have been reluctant to pursue these and other debtors because they felt they would be regarded as debt-collectors for the Government. There is ample evidence that this lack of a sense of ownership of and loyalty to co-operatives has lessened peasant participation in and appreciation of co-operative services, thereby retarding the effectiveness of the co-operative movement in transforming Zimbabwean peasant agriculture.

Secondly, inefficient management of the co-operatives by the Department of Marketing and Co-operatives staff is certainly one of the major factors inhibiting the optimal development of the co-operative movement in Zimbabwe. Examples of poor management are numerous. But the most glaring evidence is easily manifested in the appalling rates of loan recoveries as shown on Table 6.5 above. Losses incurred by producers due to grain rotting because of the Department staff's failure to deliver it to marketing depots in time and the delays in supplying the farmers with the input items - such as fertilizers, seeds and pesticides - are clear and loud manifestations of managerial inefficiency. One may also justifiable blame the members' lack of commitment to the co-operative movement, which has already been mentioned, on the poor training programmes offered by the Department staff. Low salaries offered to Co-operative employees have often been cited, in nearly every Annual Report of the Director, as the root cause for this inefficiency because no well-qualified personnel can be attracted to join the Department of Marketing and Co-operatives. Co-operative work demands a high level of numeracy and literacy, and entails a devotion to duty and long working hours. The employment of ill-qualified and unskilled personnel has often resulted in poor management. Such inefficiently managed co-operative movement cannot therefore be expected to make any impact on peasant agriculture.

Related to, or emanating from, low wages and the resultant poor management, is the high incidence of corruption among the Department staff, especially the field officers, assistants and societies' secretaries, who feel unable to remain loyal to a movement which offers them such contemptible incentives. During the early days of the Zimbabwean co-operative movement, especially the period between 1965 and 1969, embezzlement and fraudulent conversion of both public and private funds was a great plague to the development of agricultural co-operatives. For instance, in one province, co-operative field assistants embezzled nearly £1 million within a period of five years before it was discovered. As most of this money was the repayment of capital equipment - scotch carts, ploughs, cultivators, planters, harrows and shellers - which the members had bought on credit, this misappropriation broke the confidence of many peasant farmers, both inside and outside the co-operatives, but particularly of those affected, in the integrity of the movement. Small wonder, therefore, that many peasant farmers have seen no point in joining the co-operative societies. The impact of co-operative societies on improving peasant productivity is undoubtedly reduced by such bad experiences.

Fourthly, it seems that most of these problems besetting the agricultural co-operatives would be easily alleviated, if not completely solved, by a properly designed training scheme for both the members and the co-operative staff. Yet unfortunately, there is a lack of an effective training scheme with a programme which should cater for the in-service building-up of skills. It has already been noted that the Co-operative officers in the field spent not more than 15 per cent of their time in any training activity. Generally, all training within the co-operative movement is left by the Department Headquarters to provincial co-operative officers. This is certainly a curious policy in a government department whose prime role should be educational. With the exception of the Masvingo Province there have been no formally organized training courses for the

Co-operative staff. There are no courses or 'get togethers' for the Headquarters staff, and little opportunity for joint consideration and appraisal of progress or problems. The effects of this lack of training and skills, and the lack of a periodic programme of evaluation of the co-operative activities are most obvious; the potential impact of the movement on the development of peasant agriculture is definitely minimized.

Finally, the growth of co-operatives and their impact on peasant agriculture have also been hampered by the operational rigidity of the movement's structures and procedures. The bye-laws governing co-operative societies in Zimbabwe are lengthy, running into some eleven pages. They are sprinkled with complicated words and littered with legalistic clauses and expressions. And the officials of the Department of Marketing and Co-operatives insist that operational procedures in societies' meetings, in purchasing input items, in crop marketing, etc. must be rigidly adhered to. Yet most Communal Lands farmers are normally elderly, simple and often illiterate. During my research I had the opportunity to attend and observe committee meetings of societies in session. In all cases, sophisticated agendas were carefully prepared and slavishly followed; lengthy minutes were read out; endless statistics were quoted, and considerable attention was given to procedure. Little time was spent on the members' current needs. For example, in 67 per cent of the meetings attended, three-quarters of the time - sometimes as many as six hours - were spent on discussing the futile recovery of debts several years old - some of them as old as ten years[14]. These bye-laws, and such agendas, minutes and complex book-keeping systems were definitely beyond the grasp of the majority of the committee members, who consequently felt helplessly frustrated by those "endless and irrelevant meetings". It is the considered opinion of this research that such emphasis of procedural niceties has rendered the agricultural co-operative movement institutionally in-

appropriate to the requirements of the majority of peasant farmers. The effects of the government-sponsored co-operatives in the transformation of peasant agriculture are, in consequence, almost negligible.

## 6. CONCLUDING REMARKS

The Native Production and Trade Commission of 1944 which recommended the creation of African agricultural co-operatives identified supply and marketing problems to be the main constraints in the transformation of peasant agriculture. The Government-sponsored agricultural co-operatives were therefore established to provide solutions to these twin problems. This chapter set out to investigate the contribution of these co-operatives in solving these problems, and to assess their impact on peasant agricultural productivity.

From the examination of the achievements and limitations of the government co-operatives above, it has been shown that their impact on transforming peasant agriculture has been disappointing. Undoubtedly, some co-operative members have made noticeable periodic and ephemeral achievements. Government-sponsored agricultural co-operation has not been able to increase peasants' ability in acquiring the necessary agricultural input items, nor has it been able to facilitate the physical supply of these items. The co-operative societies have not been able to initiate nor effect changes in the marketing patterns of peasant produce. Transport facilities for the marketing of peasant products are as bad as they have always been. Co-operative members' productivity is as low as it has always been. Co-operative members' farming practices leave much to be desired. It was abundantly clear from the research evidence that not very many peasant farmers in Zimbabwe are impressed by government-initiated schemes for agricultural co-operation.

It would seem that government-sponsored agricultural co-operation has failed to make an impact on peasant agriculture for two main reasons.

First, the minority white governments' operational strategy was either based on an erroneous diagnosis of the peasants' real farming problems or was ignorant of the psycho-sociological environment of the peasantry and did not therefore understand their socio-economic aspirations. Secondly, as has already been stated in chapter five with regards to other government efforts, these co-operatives might not really have been intended to enable the peasantry to increase its productivity at all. Partly to test the validity of these explanations, two non-government initiated agricultural co-operative models are examined in chapters seven and eight.

## Chapter 6 - FOOTNOTES AND REFERENCES

6.1 The three villages, whence the 24 co-operative members interviewed, were in Gororo, Chibi; Banga, Shurugwi; and in Rusike, Goromonzi; and the 47 peasants had been members of the government-sponsored co-operatives.

6.2 Some of these statutory agricultural marketing bodies, as listed under Footnote 3.11, were established under the following statutes: the Maize Control Act of 1931, the Cotton Research and Industries Act of 1936, the Tobacco Marketing Act of 1936 and the Cold Storage Commission Act of 1937.

6.3 The recommendations of this Commission were also responsible for the creation, in 1948, of the African Development Fund, which has already been discussed in chapter five, and of the African Production and Marketing Branch in 1950.

6.4 M. Mahachi, Minister of Lands, Resettlement and Rural Development, quoted in the Herald.

6.5 The following fiscal concessions were made to co-operative societies: the cost of the Department exemption from paying store keepers licence and sales on farm input items, and partial exemption from income tax on profits made by co-operative stores.

6.6 This Department used to be, until 1976, the Co-operatives Branch under the Ministry of Internal Affairs, and between 1976 and 1982 it was known as the Marketing and Co-operative Services Section under the Ministry of Agriculture.

6.7 This is quoted from the Registrar's Report for the year 1961.

6.8 It is government policy that loans to peasant co-operative members should not be written off, however old they may be.

## SOURCES OF QUOTATIONS AND REFERENCES

6.1 Hume, I. M., 1977: African Co-operatives in Rhodesia, Chapter 2, p. 3.

6.2 Ibid., p. 16.

6.3 Weinrich, A. K. H., 1975: African Farmers in Rhodesia, p. 33.

6.4 The Herald, Wednesday, 26 May, 1982, p. 4.

6.5 Jordan, T. W. F., 1974: Extension Development in Tribal Farming: Rhodesia in the 1970s, in Rhodesia Agricultural Journal, Volume 71(3) p. 71.

# CHAPTER 7

# THE ASSOCIATION OF MASTER FARMERS' CLUBS[1]

## 1. INTRODUCTION

### 1.01 Content and Sources of Data

The contribution made by the Association of Master Farmers' Clubs towards the development of peasant agriculture can best be understood by explaining the reasons which led to the formation of these clubs, by examining the aims and objectives of the Association, and by critically discussing the Association's activities and the services it rendered to its members. The structure and administration, membership and growth of the Association and the spatial distribution of the clubs will also provide a useful background to the appreciation of the Association's achievements.

Although the Association of Master Farmers' Clubs was, at the time of this research, already a national organisation, the investigations of the thesis were concentrated in Masvingo Province (Figure 7.1) because, as has already been made clear in chapter two above, the Association originated and operated for five years in this province, before it could spread to other provinces.

Most of the data used in this chapter were obtained from 61 members of the Association, that is 29 per cent of the whole sample, from ten agricultural extension assistants (Table 2.4) interviewed in the province, and from interviews made with the members of the Association's National Executive. Useful information, especially about the history of the Association, was also obtained from two founder members, and from two former agricultural demonstrators who guided the formation of the first four clubs. Some data were also obtained from seven clubs' business meetings (Table 2.8) attended in Chibi, Gutu and Masvingo districts (Figure 7.1),

MASVINGO PROVINCE - DISTRIBUTION OF MASTER FARMERS CLUBS, 1981

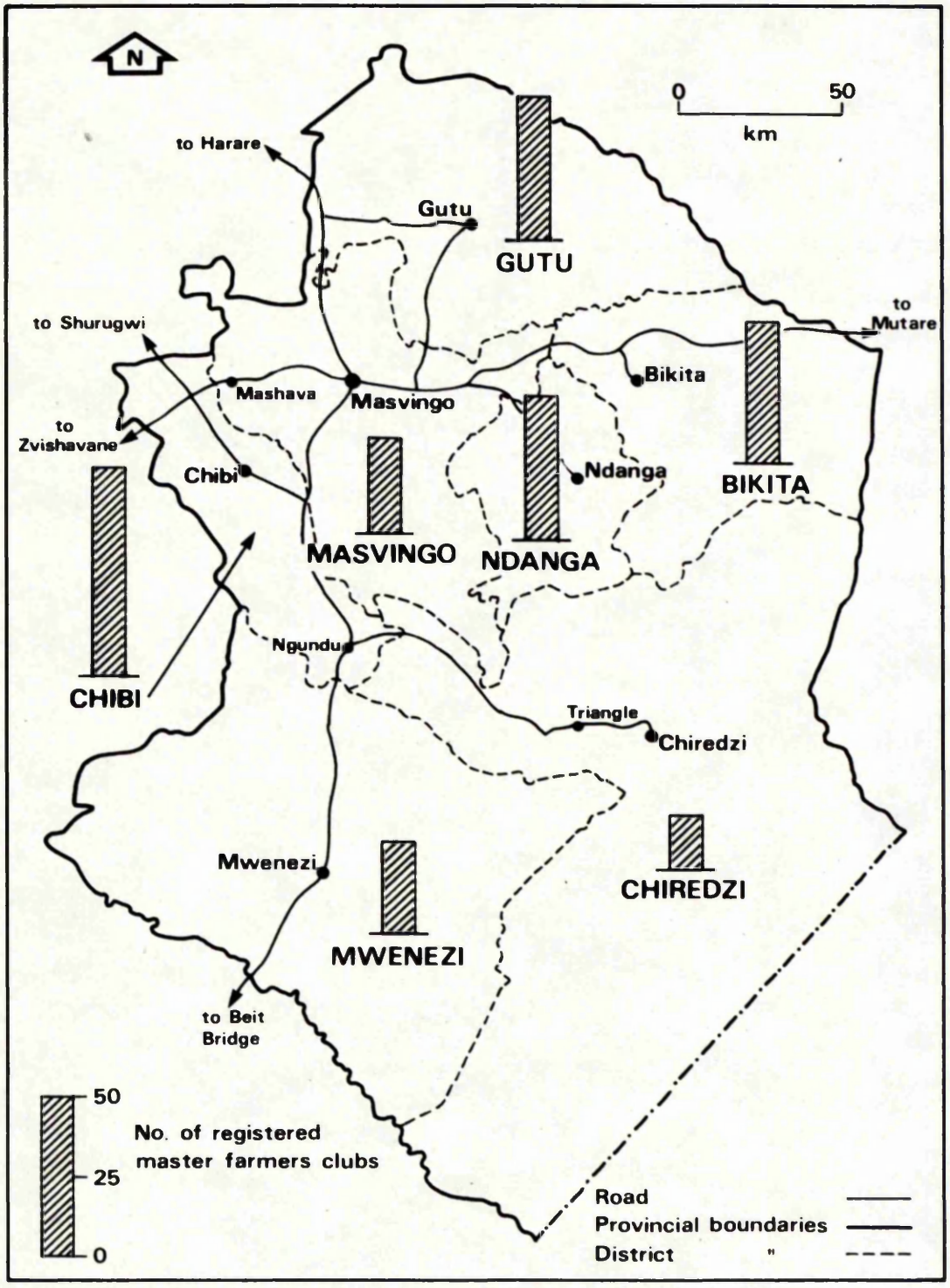



Fig. 7.1

from the Association's quarterly magazine, and from secondary and tertiary sources.

## 1.02 The Origins and the Formation of the Association

The Association of Master Farmers' Clubs is a comparatively recent phenomenon in Zimbabwean peasant agricultural development strategy. The first four formal Master Farmers' Clubs, the constituent elements of the Association, were formed in 1967 in Chibi and Gutu, under the expert supervision of two agricultural extension assistants. The Association was established and registered as a Welfare Organisation in 1973.

The formation of the Association of Master Farmers' Clubs was made possible by encouragement and guidance offered to peasants by the Department of Conservation and Extension[2], and by the Master Farmers' initiative. But the Department of the Conservation and Extension's reasons for encouraging the formation of the Master Farmers' Clubs were somewhat different from the Master Farmers' motives for joining these clubs.

The term 'Master Farmers' came into Zimbabwean agricultural extension terminology in 1934 after a decade of a unique approach to peasant agricultural extension. The original aim of the scheme was to introduce to peasant farming the concepts of manuring, mono-cropping, row-planting, crop rotation and better cultivation (Appendix VI). Unfortunately, the success of the scheme was hampered by the ever-widening demonstrator-to-farmer ratio, and by the so-called psycho-sociological pressures exerted on the emergent peasant innovators. In order to overcome these twin problems, Jordan (1966), of the then Victoria Provincial Department of Conservation and Extension, recommended the formation of Master Farmers' Clubs and an Association to promote farming educational programmes and as a means of recognizing 'agricultural leadership, which could stand up against traditional conservatism'.

While it is indeed true that some of the peasant farmers had joined the Master Farmers' Clubs for the above reasons, research evidence shows that these were not the main reasons which had motivated them in joining these clubs. All the 61 members of the Association interviewed cited dissatisfaction with the services provided by the government-sponsored co-operative societies as the main reason for the formation of the Master Farmers' Clubs. This seems to be confirmed by Hughes (1974) when he notes that

> "The main purpose /for the formation of these clubs/ appears to have been to enable members of these groups to obtain reductions in the prices of agricultural produce through bulk buying, and to help them with the marketing problems" (1).

Detailed discussion with two founder members, including the first provincial chairman of the Association, reveal that over 90 per cent of the Association's early members were farmers who had been disappointed and frustrated by the inefficiency, incompetence, and the exploitative and paternalistic nature of the government-sponsored and run co-operatives. All the Master Farmers believed that they could, themselves, provide the supply and marketing services more expeditiously and at lower costs than the co-operative societies could. This belief is fully shared by all the agricultural extension staff who were contacted in Masvingo Province.

Broadly speaking, therefore, as far as the officials were concerned, the Association of Master Farmers' Clubs was established for administrative reasons. The clubs were thought to provide a vital additional strategy in the peasant agricultural extension programmes. But according to the peasant farmers, the Master Farmers' Clubs were formed for economic and political motives.

## 2. THEIR NATURE, ORGANISATION AND DISTRIBUTION

### 2.01 Aims and Objectives

Because of the influence of existing legislation then governing farmers' associations and, perhaps more so, because of the post-U.D.I. political climate within which these clubs were conceived and born, the aims and objectives were largely educational and administrative. For example, six of the nine objectives in the Constitution of the Association of Master Farmers' Clubs (Appendix VII) are all educational in intent, while the other two are meant to facilitate the smooth administration of the Association and only one is designed to engender good relationships between the Central Government and various organizations (both statutory and private) on the one hand, and the Association on the other. In reality, however, the members recognized and operated within a different set of unwritten aims and objectives, with the promotion of better farming and the supply and marketing services being top-most. A full set can best be summarized as follows:

a) To assist in the training of potential Master Farmers by admitting them as probationary members of the Association, and by offering them training and guidance which enables them to attain the required standards of farming;

b) To promote better farming by furthering the adoption of improved farming practices, by the dissemination of the latest agricultural information, and by encouraging the maintenance and improvements of farming standards amongst the members and leading others by example and demonstration;

c) To provide the members of the Association with access to capital and credit facilities, from both their own resources and money made available by either statutory organisations or private agencies;

d) To supply the members, in bulk and at reduced prices, with agricultural input items - seeds, fertilizers, chemicals, livestock feeds, and farm implements, tools and spare parts;

e) To provide member producers with adequate and efficient marketing services for the expeditious disposal of the members' surplus; and

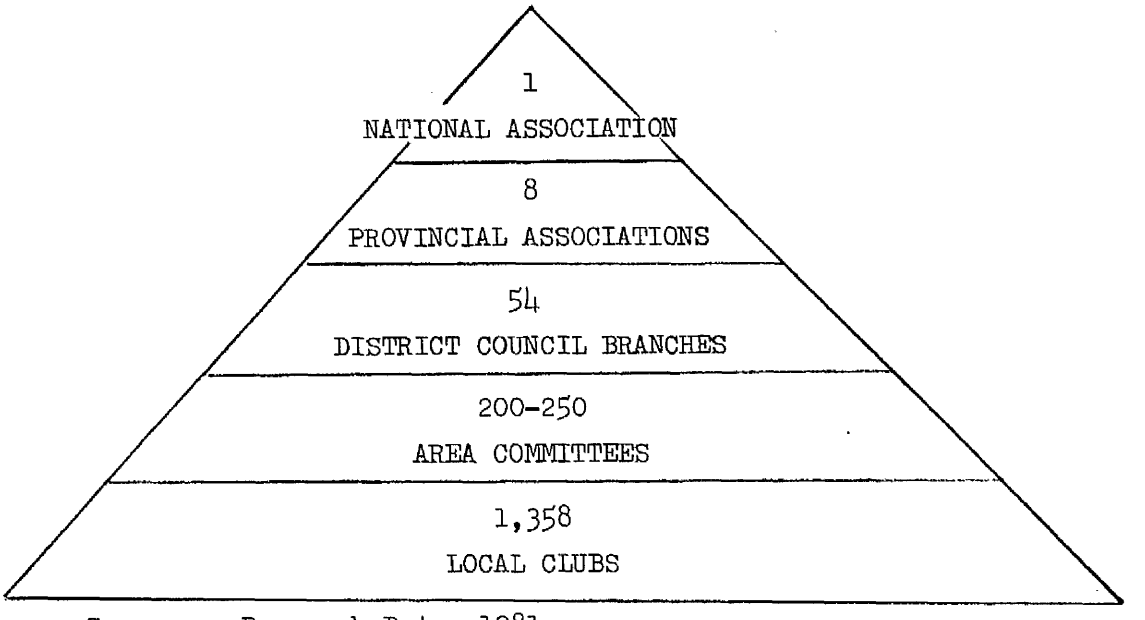
f) To publicize and represent the problems and views of Communal Lands farmers.

Although some of these aims and objectives have never been written in the Association's constitution, the national leadership of the Association contacted maintained that these generalisations defined and directed all the activities and services carried out by the Association of Master Farmers' Clubs.

## 2.02 Structure and Administration

Like the co-operative movement (Figure 6.1), the Association of Master Farmers' Clubs has a pyramidal structure. But instead of the three levels of the former, the Association has five tiers (Figure 7.2). The first tier consists of 1,358 clubs, comprising well over 80,000 individual members, at local community level[3]. All the clubs in one extension supervisor's area form Area Committees of the District Branch. Currently, these Area Committees are estimated to be between 200 and 250 in number. The 54 districts in the country have each a District Council Branch; these branches represent the third tier of the pyramid in Figure 7.2. The 54 District Council Branches form eight Provincial Associations, which constitute the fourth tier of the pyramid, and these eight provincial associations formed, in August 1980, one National Association of Master Farmers' Clubs, at the apex of the pyramid. In addition to these broad structures, there are also special producers' groups at club level.

The Pyramidal Structure of the Association of Master Farmers' Clubs.




Source: Research Data, 1981

Figure 7.2

These groups, or associations as they are called, are formed by individual members of a single Master Farmers' Club, and they cater for special growers' interests, for example Cattle fattening, Cotton, Groundnuts, Maize,Pig, Poultry, and Tobacco Producers' Associations. An individual can belong to as many of these sub-clubs as he wishes. Nearly 75 per cent of the numbers of the Association interviewed belong to more than two interest groups; which suggests that there is a high degree of diversification in the cropping patterns and livestock systems of the members of the Association. These interest groups deal with special matters related to the crops or livestock concerned.

Table 7.1 shows the structure of the Masvingo Provincial Association of Master Farmers' Clubs, the full members of the Clubs and the total provincial peasant family units by district as at July, 1981. This table also shows that Chibi, and Gutu, the first two districts to have the Master Farmers' Clubs, have the largest percentage of the Masvingo Association's district membership; each has 5 per cent of its entire number of cultivators

as members of the clubs.

Table 7.1 The Structure of Masvingo Provincial Association.

| Provincial Association | Masvingo Province Communal Lands | | | | | | |
|---|---|---|---|---|---|---|---|
| Districts | Bikita | Chibi | Chiredzi | Gutu | Masvingo | Mwenezi | Ndanga |
| Branches | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| Areas | 9 | 4 | - | 16 | 4 | - | 2 |
| Clubs | 47 | 67 | 19 | 45 | 30 | 29 | 46 |
| Members* | 1,176 | 1,135 | 157 | 1,995 | 801 | 150 | 523 |
| Farmers | 30,532 | 22,860 | 7,640 | 38,825 | 17,854 | 12,506 | 39,021 |
| Membership % | 3.9% | 5.0% | 2.1% | 5.1% | 4.5% | 1.2% | 1.3% |

Source: Research Calculations from Data obtained from the Masvingo Provincial Office of the Association of Master Farmers' Clubs, (1981).

* These membership figures exclude Probationary members.

As the Association of Master Farmers' Clubs was formed on the initiative of the peasant farmers, although with encouragement and guidance from the Department of Conservation and Extension, there has been comparatively minimal official interference with the main policy decisions and the day-to-day running of the organisation, especially at the club level. All the administration of the Masvingo Provincial Association, the focus of this chapter, is the responsibility of the Provincial Committee which comprises a President, two vice Presidents, seven District Association representatives, one chief representing the Provincial Council of the Chiefs, representatives of special producers associations (sub-clubs), a full-time secretary[4] and a full-time treasurer.

However, a Conservation and Extension Group Officer and, until 1977, the Provincial Agricultural staff were involved in assisting with advice and guidance of the Association's activities, particularly those which required professional skill and specialized resources - for instance, the auditing of the Association's accounts and the publication of the Association's quarterly magazine and farm record books. The extension

assistants in the field were also heavily involved, especially in the training programme of potential master farmers, in assisting the formation of new clubs, and in the training of club leaders.

The Central Government used to provide the Association with about Z$800 per annum in the form of a training grant. But during the time of this research the Association was financially self-supporting, and was no longer receiving any government aid. The Association's major sources of its funds were club affiliation fees and members' subscriptions, and the sale of badges and farm record books.

2.03 Membership

The Association of Master Farmers' Clubs[5], as the name implies, used to be a 'closed-shop' organisation, whose membership was, until July 1982, open only to a selected section of the peasant farming community. The Constitution of the Association (Appendix VII) specifies three types of membership, namely full membership, honorary membership, probationary membership. Honorary membership used to be conferred upon government officials, especially from the former Ministries of Internal Affairs and Agriculture. However, this category is of no relevance to the assessment of the Association's impact on peasant farming and will, therefore, be ignored in this discussion.

Full membership consists of Master Farmers who have been awarded a Master Farmers' Certificate and 'Badge'. The acquisition of a certificate and a badge were a clear manifestation of a farmer's willingness to adopt modern techniques, and of his ability and efficiency in utilizing the newly-acquired skills. But their possession was no guarantee of access to the necessary farming input items nor was it a solution to the whole array of marketing problems which beset them. These master farmers therefore felt that forming and/or joining a farming organisation would enable them to help one another to put into practice their theory, and hence this

category of the Association's membership seems the most important of them all.

Probationary membership of the Association used to be granted by Clubs to persons who were training to become master farmers. This category of membership was restricted to a period of three years,in which time a probationary member must either qualify for full membership or resign, or re-apply for admission. During the period of probationary membership these farmers received intensive training from their colleagues in the full membership category. They also received, as will be shown elsewhere below, a full range of the Association's services - input supply, marketing, representation, etc. - and also enjoyed other benefits - drought relief, sales tax exemption, etc. - which will all be dealt with in greater detail below.

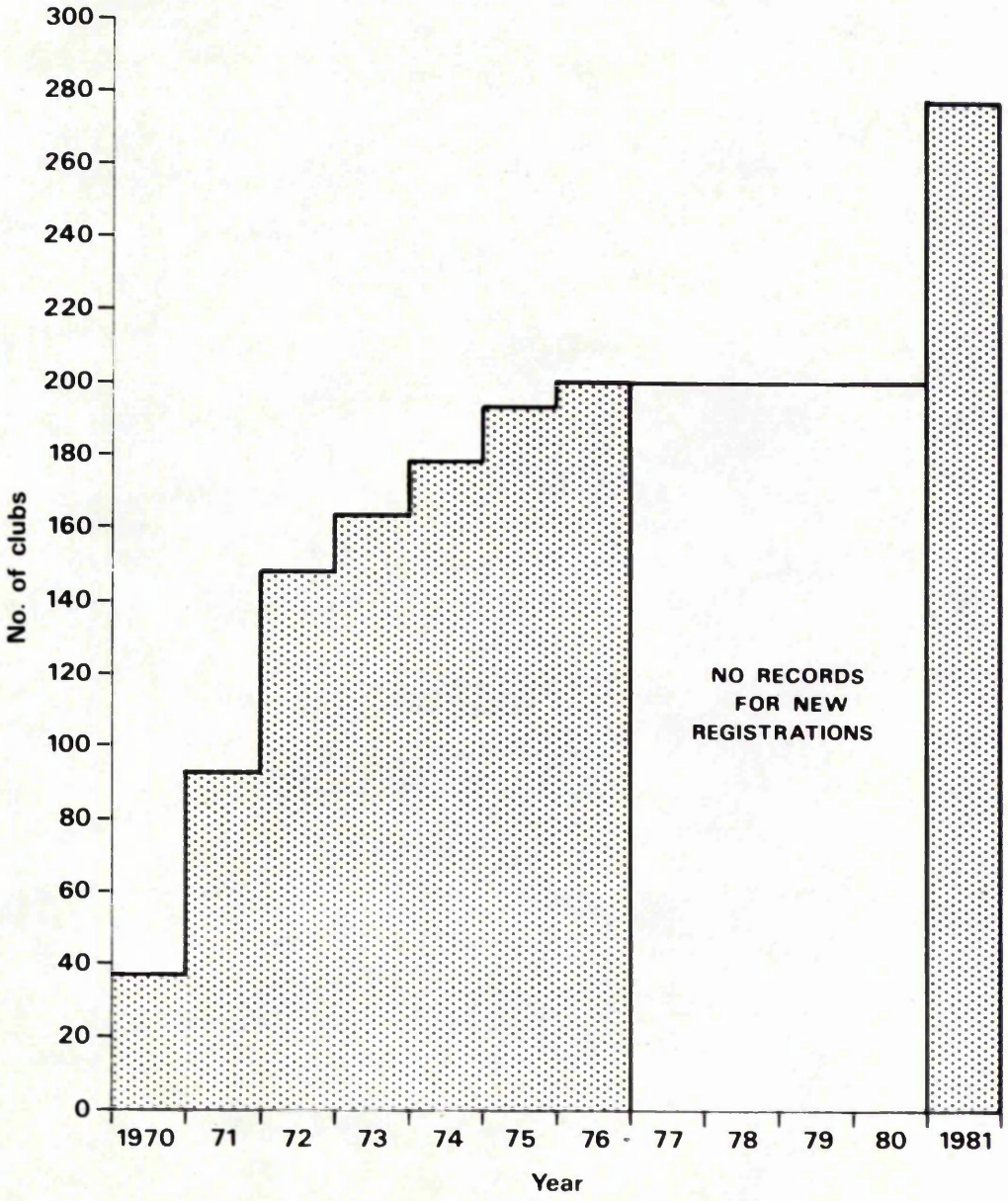
These last two categories will be regarded, for the purpose of this thesis, as constituting the entire membership of the Association.

## 2.04 Growth and Distribution

Perhaps the growth and distribution of Master Farmers' Clubs can best be understood by evaluating the Association's achievement of its first objective in the constitution (Appendix VII).

It has already been mentioned that the first four clubs were formed in 1967. By 1970, there were 38 clubs in the whole province, a growth rate of 9.5 clubs per annum. Figure 7.3 is a histogram which indicates the growth of Master Farmers' Clubs registered with the Masvingo Association from 1970 to 1981. The period between 1970 and 1975 was a period of steady and rapid expansion in the number of clubs formed and registered. The explanation for this increase lies in the effectiveness of their services to the peasant farmers. The diagram also shows that the years 1976 and 1977 were a time of levelling-off in the formation of new clubs, increasing by only five clubs (from 195 to 200 clubs) within a period of one-and-a-

NUMBER OF MASTER FARMER CLUBS
BETWEEN 1970 AND 1981




*Source: Victoria Association of Master Farmers Clubs, 1981.*

Fig. 7.3

half years. From July, 1977 to June 1980, the number of clubs formed and registered was not known. The levelling-off in the registration of new clubs and the eventual absence of new clubs between 1976 and 1980 were both due to the escalation of the liberation war which made travelling and meeting in groups almost impossible and virtually paralysed civil administration in most parts of Masvingo province. In 1980, the number of new clubs joining the Association was unprecedented. This was due to a 'crisis of expectation' caused by political changes which had brought about the birth of a free and independent Zimbabwe. There was a sudden rush for "Master Farmers' Certificates which would enable the holders to be given farms"[6], because these certificates had been, since 1953, a prerequisite for obtaining a farm in former Purchase Lands. To obtain a certificate one had, therefore, to belong to a Master Farmers' Club, which offered very efficient training.

Table 7.2 Number of Registered Master Farmers' Clubs per District, Masvingo, July, 1981.

| DISTRICT | NUMBER OF CLUBS |
|---|---|
| Bikita | 44 |
| Chibi | 65 |
| Chiredzi | 17 |
| Gutu | 45 |
| Masvingo | 30 |
| Mwenezi | 29 |
| Ndanga | 45 |
| TOTAL | 275 |

Source: Provincial Office of the Association, Masvingo.

Table 7.2 shows the number of clubs registered in each of the seven Masvingo districts. It is clear that Chibi has the largest number of registered clubs per district, incidently not only in Masvingo Province,

but also in the whole country. The reasons for this phenomenon are historical and the ethnic homogeneity of the district's population. The second of these reasons, as will be expanded elsewhere in this thesis, seems to be a very strong factor in the promotion of peasant agricultural co-operation. Figure 7.1 above shows the relative spatial distribution of the Master Farmers' Clubs throughout Masvingo Province by July, 1981.

At this point, it seems relevant to mention the growth and distribution of the Master Farmers' Club beyond the confines of Masvingo province. As early as February 1972, the Association had extended its influence as far as Zvishavane in the Midlands province. By June that year, five clubs had been formed in the area, and were applying to join the Masvingo Association. But they were advised to form their own Association. By 1975, the Association had spread its influence to Mutare. In March 1975, Manicaland province asked for the Masvingo constitution, and by May the province had registered 41 clubs, which increased to 48 by August in the same year.

Although open activities of the Association were difficult because of the war, by the mid 1970s all the provinces had expressed an interest in forming Associations of Master Farmers' Clubs. In August 1980, a National Association of Master Farmers' Clubs was formed at Domboshawa with a membership of 600 registered clubs. By July 1981, this figure had risen to 1,358 clubs with a membership of over 80,000 farmers throughout the country. Table 7.3 depicts the national distribution of Master Farmers' Clubs by province as at July 1981. This table shows that the Matabeleland provinces have the lowest number of clubs. This is due to the fact that this region is drier than the rest of the country (Figure 3.5), and hence more suited to pastoral husbandry than to crop farming, which has many production operations that justify agricultural co-operation.

Table 7.3 The National Distribution of Master Farmers' Clubs by Province.

| PROVINCE | NUMBER OF CLUBS |
|---|---|
| Manicaland | 259 |
| Mashonaland Central | 179 |
| Mashonaland East | 182 |
| Mashonaland West | 201 |
| Masvingo | 275 |
| Matebeleland North | 9 |
| Matebeleland South | 27 |
| Midlands | 226 |
| Total | 1,358 |

Source: National Association of Master Farmers' Clubs' Office.

## 3. ACTIVITIES AND SERVICES

The activities and services provided by the Association of Master Farmers' Clubs are many and diverse. But for the purpose of assessing the achievements of these clubs, the following areas will be dealt with: the training of new master farmers, the promotion of better farming, the provision of agricultural inputs, provision of marketing facilities, and representation of communal farmers' interests.

### 3.01 Assisting in Training Master Farmers

It has already been mentioned that one of the official reasons for encouraging the formation of Master Farmers' Clubs was to involve these clubs in the training of new master farmers. Table 7.4 shows clearly the reasons for enlisting the assistance of Master Farmers' Clubs in extension service in general, and in the training of new master farmers, in particular. From this table it can be seen that, with the exception of Chiredzi, all the other six districts have an extension staff to peasant farmer ratio of one to more than 700. A detailed calculation of these statistics gives a provincial ratio of extension staff to peasant farmers of one to 791. It is obvious, on the basis of these ratios, that if extension services were to be performed entirely and solely by the official extension staff it

would take some peasant farmers more than two years before they could be visited by an extension assistant. The need to involve the Association in extension services has been most acute, and will probably remain so for a long time to come.

Table 7.4 The Ratio of Extension Staff to Peasant Farmers in Masvingo Province, 1981

| Extension Personnel & Farming Families | Districts | | | | | | |
|---|---|---|---|---|---|---|---|
| | Bikita | Chibi | Chiredzi | Gutu | Masvingo | Mwenezi | Ndanga |
| Agricultural Officers | 1 | 1 | 2 | 2 | 1 | 1 | 2 |
| Extension Supervisors | 4 | 3 | 5 | 5 | 4 | 1 | 4 |
| Extension Assistants | 30 | 21 | 31 | 47 | 19 | 6 | 34 |
| Farming Units | 30,532 | 22,860 | 7,640 | 38,825 | 17,854 | 12,506 | 39,021 |
| Ratio of Extension Staff to Farming Units | 1:898 | 1:953 | 1:212 | 1:747 | 1:776 | 1:1787 | 1:1027 |

Source: Provincial Association of Master Farmers' Clubs Office.

The Association was, therefore, formally invited to assist in the training, recruiting and examination of Master Farmer trainees in 1970 after the delegates at the Association's Annual General Meeting had been convinced that the task was too big for the agricultural extension service to accomplish alone. The final examination and issue of Badges and Certificate remained, however, the responsibility of the District Agricultural Extension Service.

The prospective master farmer registers with a Club as a probationary member theoretically for three years, during which time he is trained in better farming methods. At the end of that time, the trainee is examined for the Master Farmers' Certificate. But this research found evidence to suggest that a trainee can be examined before the end of three years provided the Club Committee is satisfied by the farmer's standard of farming.

The Association's training programme includes the teaching of probationary members, often in small groups at meetings or short weekly residential courses, and during field days (plate 2). Each full member is allocated one or two master farmer trainees to supervise closely. If he has any problems he consults the Club Committee or the local extension assistant. Each probationary member therefore has access to information and assistance from the government agricultural extension staff, from Master Farmers' Club Committee members, and from local Master Farmers. When the trainee needs help, often the club calls a meeting at his farm and the extension agent[7] takes the opportunity to carry out some demonstration (plate 6). If the project is one which requires manual labour, the club members provide collective labour. Many cattle pens, tool sheds, row markers, compost pits, and even toilets have been made by club members in groups for their trainees. In all these cases, the extension agent takes the opportunity to demonstrate skills and also to make sure the individual trainees acquire these skills.

Each trainee has a 'Master Farmer Score Sheet'[8] in which the candidate's performance is scored and his progress rated. When the trainee is ready for examination the Club Committee recommends him to the local agricultural extension assistant. If the latter is satisfied that those recommended by the Committee are indeed ready for examination, he invites his supervisor to carry out a 'preliminary examination'. Those who pass this preliminary examination are then examined by the District Agricultural Officer for the final decision. Communication links between the Master Farmers' Clubs and extension staff, for master farmer training purposes, are shown in Table 7.5. The corresponding levels between the command structure of the Association and that of the Extension Service have rendered the Association's extension activities very effective, especially its capacity in training new master farmers.

Table 7.5 Communication Links between Master Farmers' Clubs and Agricultural Extension Service.

| MASTER FARMERS' CLUBS | AGRICULTURAL EXTENSION SERVICE |
|---|---|
| Provincial Committee | Provincial Agricultural Officer (training) |
| District Committee | Agricultural Officer |
| Area Committee | Extension Supervisor |
| Club Committee/Members | Extension Assistant |

Source: Constructed from Research Data, 1981.

All the agricultural extension assistants interviewed in Masvingo Province maintain that their extension task would be well nigh impossible without the assistance of the Master Farmers' Clubs. Table 7.6 shows that, by including Master Farmers in the extension programme for the Masvingo Province, the ratio of agricultural information source to peasant farmer, which has already been shown to be 1:791, is dramatically improved; the provincial ratio being reduced to 1:28. Jordan's (1967) original recommendation for the support of Master Farmers' Clubs would appear to have been vindicated. It can easily be seen that, theoretically, each peasant farmer now has the chance of receiving direct agricultural advisory services at least once a month. The involvement of Master Farmers in extension work has phenomenally improved the capacity of the extension services in the training of new master farmers. Today, one provincial agricultural official estimates that nearly two-thirds of the full membership of the Masvingo Provincial Association are made up of Master Farmers who were trained under the auspices of Master Farmers' Clubs. Nearly 60 per cent of the research sample in the province were also trained by the Association of Master Farmers' Clubs. Table 7.7 shows the number of peasant farmers who obtained Master Farmer Certificates in Masvingo Province between 1970 and 1980. Although the figures fluctuate from one year to the other, there is a definite trend showing an increase in the numbers of peasants who have become master farmers throughout the decade.

Table 7.6 Ratio of Extension Staff and Master Farmers to Peasant Farmers in Masvingo Province, 1981.

| RATIOS TO PEASANT FARMING FAMILIES | DISTRICTS | | | | | | |
|---|---|---|---|---|---|---|---|
| | BIKITA | CHIBI | CHIREDZI | GUTU | MASVINGO | MWENEZI | NDANGA |
| Ratio of Extension Staff to Peasant Farmers | 1:898 | 1:953 | 1:212 | 1:747 | 1:776 | 1:1797 | 1:1027 |
| Number of Master Farmers* | 1,176 | 1,135 | 157 | 1,995 | 801 | 150 | 523 |
| Ratio of Extension Staff and Master Farmers to Peasant Farmers | 1:25 | 1:20 | 1:40 | 1:19 | 1:22 | 1:80 | 1:70 |

Source: Research Data and Table 7.4 above.

Table 7.7 The Number of Master Farmers Obtaining Certificates between 1970 and 1980.

| 1970 | 1971 | 1972 | 1973 | 1974 | 1975 | 1976 | 1977 | 1978 | 1979 | 1980 | DECADE TOTAL |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 69 | 187 | 135 | 109 | 108 | 153 | 137 | 171 | 342 | 272 | 914 | 2,597 |

Source: Masvingo Agricultural Extension Office, 1981.

This level of training was maintained throughout the decade, despite the ravages of the liberation war. The dramatic upsurge in 1980 was due to the crisis of expectations already referred to above. If this trend were maintained and each Master Farmer produced two other Master Farmers per year, it would take only ten years for all the peasant farmers in Masvingo Province to become Master Farmers. From all the above evidence, it seems fair to state that Master Farmers' Clubs are a very effective peasant farmer training strategy.

* These statistics exclude Master Farmers who are not members of the Association of Master Farmers' Clubs.

3.02 Promotion of Better Farming

Promotion of better farming was possibly the single most important objective of Alvord's extension work. Hence its inclusion among the Association's objectives (Appendix VII). Better farming, according to the 61 members of the Association selected for this research, means the adoption and application of modern farming methods in producing crops and livestock not only for subsistence requirements but also for cash purposes. These methods entail the use of livestock and compost manure, fertilizer, improved seeds and animal breeds, and they embrace the acceptance and appreciation of the concepts of mono-cropping, row planting, and crop rotation, all of which are designed to improve farming productivity per given unit factor of production, and to conserve the soil and maintain its fertility. When these 61 farmers were asked how the Association had helped them to adopt modern farming methods, they listed five methods by which the Association is considered to promote better farming. Table 7.8 shows all the five major responses obtained from these farmers.

Table 7.8 The Association's Role in the Adoption of Modern Farming Methods (N = 61)

| FARMERS' RESPONSES | FREQUENCIES |
|---|---|
| 1. Dissemination of agricultural information | 100% |
| 2. Organising and running agricultural seminars | 95% |
| 3. Organising competitions, field days, rallies and visits | 100% |
| 4. Provision of collective demonstration labour | 69% |
| 5. Provision of credit facilities | 56% |

Source: Research Data, 1981.

(a) Dissemination of Agricultural Information

All the Agricultural Extension assistants interviewed maintained that lack of sufficient extension personnel to spread relevant and useful agricultural information among peasant farmers is a serious handicap in the diffusion of new agricultural technology. This point is confirmed by Jordan (1974), then Masvingo Provincial Agricultural Officer, when he notes that

> "The existing ratio of Extension workers to Farm Families is inadequate to cope with mass adoption by the 'early majority'. The service is swamped by demand. The adopters press on with inadequate advice and knowledge at poor management levels with resultant financial loss, or a poor comparison between the new practice and their traditional way of doing things is obtained"(2).

All the 61 Master Farmers reported that the Association is a vital vehicle in the dissemination of important agricultural information, thereby overcoming the problem of insufficient 'official extension service'. The Association collects and collates information on anything considered of farming interest to its members - for instance, on sources of supplies, best marketing channels, courses and rallies, new research findings, progress in other areas, etc. - and, through its clubs, horizontally spreads this information to the entire membership. The Association disseminates information through its quarterly magazine, and also through meetings and rallies at provincial, district, area and club levels. Information in all these areas helps to keep the members of the Association well informed about new developments in agriculture.

(b) Organising and Running Agricultural Courses

The Association also promotes the diffusion of modern farming techniques by organising and running, in consultation and co-ordination with the provincial extension training staff, weekly seminars or courses on agricultural awareness and developments. When a course is organised, clubs are invited to recruit and send a specific number of participants to a centrally chosen centre. Ninety per cent of these courses and/or

seminars are held at Alvord Community Development and Training Centre which is about 32 kilometres from the town of Masvingo. Courses are designed to cover specific areas of interest to the farmers; these are specialized courses which will concentrate on special aspects of farming, for instance crop or livestock production, or even the production of one crop, say cotton or sunflower and farm planning and management. But the majority of these courses are generalized; that is, they cover various aspects of peasant farming. Needless to say, therefore, the content of each course determines the recruitment of participants. Various experts, mainly from the Departments of Agricultural Extension Training Service, and of Conservation and Extension, are invited to lecture in the fields of their specialisation at these courses. The programmes of these courses deal with a wide range of farming aspects (Appendix VIII), but the following seven aspects seem to feature prominently in nearly all the programmes seen during this research:

(i) the importance of agricultural co-operation;

(ii) cash cropping in peasant farming;

(iii) the importance, types and use of fertilizers, pesticides and herbicides;

(iv) paddock grazing and cattle pen fattening;

(v) techniques of compost making;

(vi) the importance and pattern of crop rotation;

(vii) soil erosion and soil conservation.

When participants return home, they are expected to implement the knowledge they acquire at these courses. The Association has a rigorous and efficient system of follow-ups to see that the farmers apply their knowledge. Both the farmers and extension staff agree that these training courses, as will be shown in chapter nine, are the most effective extension method of

imparting farming knowledge to the Zimbabwean peasantry.

(c) Organising Competitions, Field Days, Rallies and Visits

All the Master Farmers interviewed reported unanimously that the Association furthers the adoption of better farming practices through organising and running competitions, field days, rallies and visits. There was also abundant evidence in both the Association's documents and agricultural extension staff's reports about competitions, field days, rallies and visits organized and held by the Association.

(i) Competitions: Between 1970 and 1976, Association members from four Masvingo districts - Gutu, Bikita, Chibi, and Masvingo - each won top prizes in the National Grazing Scheme competitions. For three years (1977-1979) the Chibi District Association won top prizes in the National Groundnut Competitions. In 1977, Gutu got the second prize. In 1980, Chibi got the first and second prizes and in 1979, it got all the three top prizes in this competition. Again for three years, 1976 to 1978, members of the Masvingo Provincial Association in Chibi, Gutu, and Bikita got the top prizes for the National Sorghum Competition. In 1976, Mwenezi got the second prize in this competition. The Association also hold annual District Good Farming Competitions on one food crop, one cash crop, pen fattened livestock, good homestead and cattle pens.

(ii) Field Days: Field days have, since the early 1930s, become a common feature of Zimbabwean agricultural extension work. Field days are a form of competition as well as an opportunity for demonstration work in good farming practices. The club committee and the local extension assistant select the field with the most outstanding crop grown in accordance with the principles of good farming, and invite the club members as well as all the local peasant cultivators to come to a 'pre-harvest' meeting

at that best field so that they can observe his crop and listen to the farmer's methods of farming. Some of these field days are attended by as many as 200 farmers. The Club Committee always invites such officials as Government Ministers, Members of Parliament, Provincial and/or District Agricultural Officers, and representatives from Fertilizer Companies and Seeds Corporations. These officials have the opportunity of addressing the people on various aspects of farming. All the farmers interviewed maintained that these field days are an effective agricultural educational process.

(iii) Rallies: The Association has, since 1972, held Annual Provincial Rallies in about September or October. These rallies are attended by delegates from all the seven districts sent by each club. The rallies are convened to discuss, usually for two to three days, matters of interest to the Association. The rallies are always opened by a senior official from either the Ministry of Agriculture or the Ministry of Lands, Resettlement and Rural Development; and the delegates are also addressed by representatives from both Commerce and Industry. When the delegates return to their clubs they must report all the deliberations to their colleagues. Those who have attended these rallies have found them a very useful forum for the exchange of farming ideas and the solution of general problems.

(iv) Visits: Clubs carry out numerous visits both within and outside the District and sometimes outside the Province. In 1981 alone, Clubs from the three districts - Chibi, Gutu, and Masvingo - covered during this research, visited Chisumbanje and Nyanyadzi to see the growing of irrigated wheat, Matopos to see the breeding of cattle for beef under dry weather conditions, Henderson Research Station to see a variety of agricultural projects, and Sanyati to see the cotton spinning scheme. They

also visited local large-scale commercial farmers to learn about simple techniques of poultry and pig production. These visits have helped to improve the farming techniques of many farmers.

d) Provision of Collective Demonstration Labour

It has already been mentioned under subsection 3.01 above that Master Farmers' Clubs provide collective labour to their master farmer trainees when the projects under demonstration require manual labour. It must be emphasized that this practice of providing collective labour is now increasingly becoming commonplace not only among probationary members, but also among full members. Besides demonstrating specific skills required by different farming aspects, the clubs have now realised that collective labour makes light work. Many fields have been prepared, ploughed, planted, fertilized, weeded, and harvested through collective labour. Such operations as the spraying of insecticides and herbicides have more often than not been done collectively because they need relatively specialized skills and special equipment which tend to be scarce among the great majority of the peasant farmers. The construction of big projects, such as the grain silos and cattle handling facilities where the produce is initially gathered for eventual collection and delivery to the appropriate marketing board, has always been done through collective efforts. Sixty-nine per cent of the farmers interviewed from these Clubs have found collective demonstration labour a very valuable source of farming education because they 'learn by doing'.

e) Provision of Access to Credit Facilities

It has already been shown elsewhere in this thesis that peasant agricultural production is capable of intensification. But this intensification requires the use of fertilizers, improved seeds, insecticides, improved farm equipment and improved grazing management. Yet these necessary

inputs need money. Unfortunately, most peasant producers, as already stated in chapter six, cannot afford these supplies from their own poor individual resources, nor do they have much in the way of collateral to offer as security for loans from commercial sources. It has also been shown, in chapter five, that pre-independence governments seriously neglected this aspect of their peasant agricultural development programmes. Provision of access to credit facilities has, therefore, been one of the greatest objectives of the Association of Master Farmers' Clubs. It has sought to achieve this objective through three inter-related ways.

First, the Association has, since its formation, relentlessly pressed hard for the Government to provide access to credit facilities for Communal Lands farmers. In 1979/80, the Agricultural Finance Corporation, already discussed above, relented and agreed to extend its lending facilities to this category of farmers. During that season, 4,348 Communal Lands farmers were assisted with loans of Z$1.6 million. In the 1980/81 season, this figure was increased to Z$8.2 million to cater for 21,200 peasant farmers. The Agricultural Finance Corporation was planning during the time of this research to give Z$18 million in loans to 35,000 Communal Lands farmers for the 1981/82 season. Since the Corporation made a policy of lending almost exclusively to peasant farmers who are operating in agricultural co-operatives, the members of the Association of Master Farmers' Clubs had, as can be seen on Table 7.9, some access to this source of credit.

Secondly, the Association has untiringly and successfully raised, from its own efforts, sufficient funds to be able to obtain the necessary agricultural inputs for advancing to a sizeable number of its members. The Association has also encouraged other organisations, notably the credit unions, savings clubs and the government-sponsored co-operative societies, to provide financial aid to its members. In some cases, the Clubs have been required to act as guarantors for their members' debts. Table 7.9

shows four sources of financial assistance to the members of Kushinga Club in Chibi District (Figure 7.1). All the four sources provide short-term seasonal loans. Out of an annual expenditure on inputs of Z$5,504, this Club secured for its members a loan of Z$3,536 which is 64 per cent of their financial requirements. All the members of the Kushinga Club contacted were unanimous and firm in admitting that they would never have been able to get access to these sources if they had not been members of the Association.

Table 7.9 Kushinga Club, Chibi District - Sources and Repayment Rates for short-term Seasonal Loans, 1980/81 (N = 62)

| Sources of Loans | Amount in Z$ | Repayment % by Aug. 1981 |
|---|---|---|
| Master Farmers' Club | 972.00 | 82% |
| Credit Unions and Savings Clubs | 836.00 | 96% |
| Statutory Co-operative Societies | 468.00 | 91% |
| Agricultural Finance Corporation | 1,260.00 | 100% |

Source: Kushinga Club Records, August, 1981.

Thirdly, the Association has helped to enhance its members' capacity to acquire the necessary inputs by encouraging a spirit and the techniques of thrift among its members. The Association, at all the four levels - the club, the area, the district and provincial - organizes and runs courses on the importance and techniques of saving, and the general basic principles of accounts (Appendix VIII). The members of the Kushinga Club, as shown in Table 7.9 provide clear evidence of the success of these training courses; they managed, in 1980/81, to raise from their individual savings well over a third of their capital requirements. One factor which must also be noted is the ability of the members of the Association to repay their loans. For instance, the members of the Kushinga Club were able to achieve a repayment record of 93 per cent of their loan by August, well before the end of the marketing season.

All the 61 members of the Association of Master Farmers' Clubs interviewed were unanimous and emphatic in their applause for the very useful role of the Association in promoting better farming, which is one of the organisation's major constitutional objectives. They were all able, as will be shown below, to cite concrete examples of how the Association has helped to improve the performance of their farming.

### 3.03 Provision of Agricultural Input Items

Both the agricultural extension assistants and the members of the Association of Master Farmers' Clubs interviewed for this research were all aware that any peasant farmer who aspired to adopt modern agricultural practices could never succeed unless he had access to an adequate supply of the necessary agricultural inputs - seeds, fertilizer, pesticides, stockfeeds and medicines - and improved farming hardware. The supply of empty grain sacks was also essential for the marketing of any crop surplus yet, according to the evidence obtained from various sources, access to these inputs was an almost impossible task for an individual peasant farmer. First, the majority of the peasant cultivators in Masvingo, like in the rest of the country, could not financially afford to acquire the necessary inputs; secondly, and perhaps more frustrating, even those producers - a tiny fraction - who had some money to buy some of these items, were seriously discriminated against by the input manufacturing companies for various, mainly administrative, economic and political reasons which will be made clear elsewhere in this thesis. The peasant farmer could not, therefore, acquire certain brands of fertilizer and strains of seeds. Thirdly, even those inputs which the farmer managed to buy could not, in most cases, be delivered in time for use because of long distances from supply points, and of prohibitively expensive transport costs and, as Riddell (1981) notes

> "Whereas in many cases supplies obtained from town centres have had to be brought in on bus roof-racks, losses through wastage have been substantial."(3)

The supply of agricultural input items has therefore been, and appropriately so, one of the problems which the Association vigorously addressed its attention to.

Some of the Master Farmers interviewed were, however, ready to admit that the Association had not completely provided solutions to all the problems of supplying the agricultural inputs. There was, nevertheless, ample evidence to show co-operative activities and supplying services which had been undertaken by the Association. For example, one club in Masvingo District furnished me with their 1980/81 season command sheets, showing all the inputs ordered in bulk for their members. Table 7.10 shows the list of selected items handled by the Batanai Club (Figure 7.1). These items constitute the major inputs which are ordered collectively and supplied in bulk.

Table 7.10 Batanai Club, Masvingo District: Expenditure on Selected Inputs (N = 54)

| ITEM | QUANTITY | VALUE IN Z$ |
|---|---|---|
| Fertilizer | 256 x 50 Kg. Bags | 2,369.28 |
| Seeds | 74 x 10 Kg. Bags | 421.80 |
| Pesticides | 22 x 2 Kg. Pkts. | 18.70 |
| Herbicides | 32 Litres | 11.52 |
| Empty Grain Bags | 1,830 Sacks | 1,189.50 |
| Stockfeeds and Medicines | - | 810.65 |
| Agricultural Hardware[9] | - | 465.00 |
| TOTAL SPENT ON INPUTS | - | Z$5,286.45 |

Sources: Batanai Club Command Sheets, 1980/81.

The Executive Committee of the club told me that when they submitted their fertilizer order of over Z$2,000 to the Windmill Fertilizer Company, the sales manager took no time to authorize the supply of all the brands they

needed for reasons that require no elaboration. Because the club had a large number of bags to be delivered, the local businessman charged them a reduced price for his lorry, and so all the inputs arrived in time for distribution to individual members who had placed the orders. The Provincial Executive Committee in Masvingo informed me that the Batanai Club input turnover is generally typical of all the successful clubs in the province. If the supply activities and services offered by all the Clubs are similar to these then it seems safe to conclude, however cautiously, that the Association has been fairly successful in the provision of agricultural inputs.

### 3.04 The Marketing Services

The major problems in marketing peasant products emanate from the nature of Zimbabwe's centrally controlled marketing system, whose performance tends to favour the large-scale commercial producers at the expense of peasant cultivators. While large-scale farmers bulk, bag, weigh and grade their own grain and deliver it to depots established, as already shown, along the main infrastructural network, most of the peasant producers deliver their grain in small ungraded and unweighed lots to the marketing agents (usually local traders) dotted throughout the Communal Lands. The problems and disadvantages of marketing through these local agents have already been exhaustively dealt with in chapter six. It has also been shown how the former members of the government-sponsored agricultural co-operatives who, it will be remembered, initially constituted over 90 per cent of the Association's membership, became disappointed and frustrated by the poor marketing services proferred by these Societies.

Consequently, when the Association was formed the Executive were determined to offer their members improved, reliable and efficient marketing services which were intended to deliver the grain or livestock direct to the appropriate boards. The government co-operative movement

felt threatened, and hence 'advised' the Association that they could not register with the Grain Marketing Board as Master Fathers' Clubs. Although the Master Farmers could legally register as individual producers, the Grain Marketing Board was reluctant to register them because the Board staff knew that registering individual farmers meant more work for them. Both the Co-operative Societies and the Grain Marketing Board therefore encouraged the members of the Association to register with the Co-operative Movement. But the Master Farmers refused, and the Clubs used some of their members' Marketing Cards to sell their members produce collectively. Like the large-scale commercial farmers, they bulk, grade, bag, weigh and collectively deliver their produce direct to appropriate marketing boards. For ten years the government-sponsored co-operative movement, as already mentioned in chapter six, waged a relentless campaign against the continued independence of the Association. But in July, 1980 the Co-operative Societies relented and reported that the Master Farmers' Clubs could now register with and enjoy direct marketing services offered by every statutory marketing board.

Despite all these problems and the long distances covered on rough roads to the nearest marketing depots, the Association has, according to information from both the agricultural extension staff and the members, performed its marketing services with distinction. Table 7.11 gives some idea of the volume of produce marketed by a typically successful Club in the 1980/81 season. Three clubs were chosen from each of the three districts which were studied for this particular purpose. The Executive Committees of the three Clubs were, however, ready to point out that between twenty and thirty percent of their members' produce is sold privately to local markets, particularly fellow peasant consumers and the local Mission Boarding Schools, hospitals and clinics.

Table 7.11 Marketing Handled by Selected Clubs in the 1980/81 Season

| SELECTED CLUBS | MEMBERSHIP | PRODUCE MARKETED | | TOTAL VALUE (in Z$) |
|---|---|---|---|---|
| | | Crops (Tonnes) | Cattle (Head) | |
| Batanai, Masvingo | 54 | 149 | 16 | 17,168 |
| Kushinga, Chibi | 62 | 166 | 27 | 19,082 |
| Serima, Gutu | 57 | 154 | 21 | 17,573 |

Source: Data from the three Club Executive Committees, 1981.

3.05 Representation of Communal Farmers' Problems and Interests

It was the intention of the Department of Conservation and Extension and, later on, of the Agricultural Extension Service to use the Association as a vehicle for peasant agricultural extension only. But, as already noted, as soon as the Association came into existence they started representing and publicising the problems and views of the Communal Lands farmers. The officials of the Agricultural Extension Service construed this to be 'agricultural politics'; the Association was warned several times that they should refrain from operating as a "Farmers' Union". However, the Association politely and tactfully continued to represent the problems and views of the members, and yet carefully avoided including this objective in their constitution.

All the master farmers interviewed were fully aware of the Association's role of representing them in matters concerning their interests. When they were asked how successful the Association has been in fulfilling this role, they were able to list a number of achievements. Most of them noted that through the efforts of the Association they are now exempted from paying sales tax on agricultural input items; that the African Development Fund levy had been removed; that they are now able to get 'Drought Relief' in bad years; that the Association is now directly represented on Agricultural Marketing Authority and on the Natural Resources Board; and that the Association is now openly and effectively involved in Agricultural politics -

a very tall list of achievements.

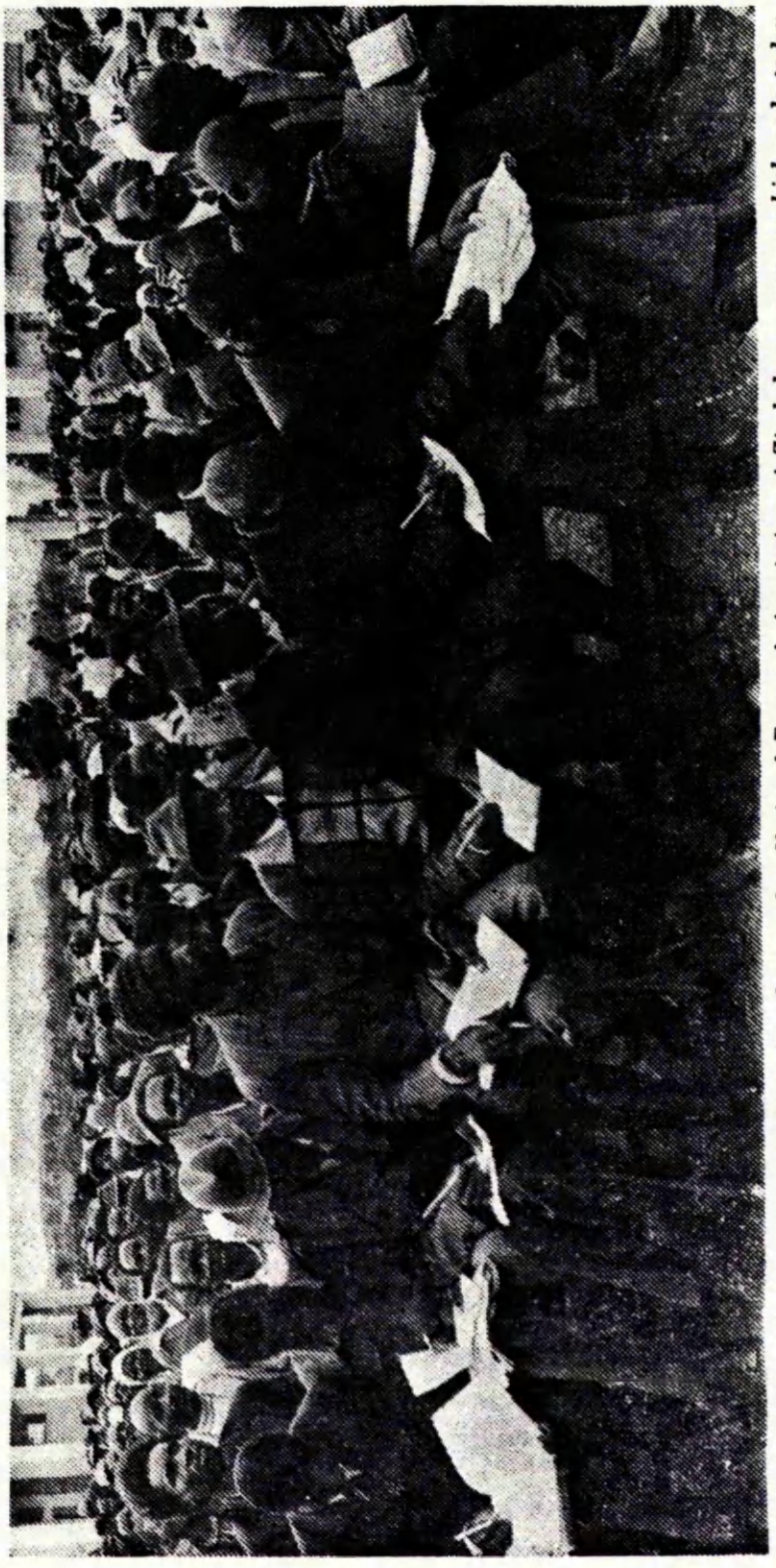
a) Sales Tax Exemption - When the Association realised that large-scale commercial farmers were not paying sales tax on agricultural inputs, they looked for legal means that might entitle them to exemption. The Association argued that their members' agricultural production was commercially orientated so that they could also be regarded as commercial farmers, though on a small scale. In July 1976, the Association was told that the master farmers qualified for the exemption. But since they do not have farm licences, as commercial farmers do, they must obtain a letter from the District Commissioner's[10] office stating that they were master farmers, and listing the items they would not pay tax on.

b) Abolition of the African Development Fund Levy - The levy tax, introduced in 1948, was collected directly from peasant farmers' produce which was sold through statutory marketing boards, or their agents. It covered a wide range of controlled commodities and livestock and, as already indicated in chapter five, it could be as high as 15 per cent of the retail price. The Association argued that this tax was affecting most seriously anyone who was marketing legally through statutory channels, and hence discouraged all progressive peasant cultivators from marketing their products. They also argued that as an instrument of economic policy, this tax did not motivate peasant farmers to produce a surplus for cash. Consequently, and much to the delight of the Association, the Government partly conceded in 1975, to reduce the levy from 10 per cent to $2\frac{1}{2}$ per cent for all the cattle that fell into the chiller to G.A.Q. and selected Grades[11]; and in 1978 the Government agreed to remove the levy on all crops sold to the Agricultural Marketing Authority.

c) Drought Relief - While large-scale commercial farmers were heavily subsidized during drought years, peasant farmers got nothing; instead they were 'encouraged' to sell their livestock. For those who had no cattle, famine relief schemes were operated through which needy families could work on public projects for food. The Association felt that this was an unfair discrimination, and hence made strong representation to the Government on behalf of the Communal Lands farmers. In 1973,1979 and 1980 the members of the Association were consequently given drought relief in the form of fertilizer and seed. In 1979 and 1980, the Association was virtually given the responsibility for practically administering the drought relief in that they decided who was eligible and who was not. Although only the members of the Association were initially eligible for consideration for this drought relief, most of the farmers interviewed felt that this was definitely a great achievement by their Association.

d) Representation on Parastatal Bodies - One of the areas in which the Association has made remarkable success is recognition by government bodies. In 1978, the Provincial President and his Vice-President were invited to represent the Communal Lands farmers on the Agricultural Marketing Authority. Today, these roles are played by the National President and his Vice-President respectively, and between them they represent the Association on the Livestock, Oilseed, and Cotton sections of the Agricultural Marketing Authority. The Vice-President has also been nominated a member of the Natural Resources Board. One of the Master Farmers nominated by the Association, represents the Communal Lands farmers on the Oriental Tobacco Association, which deals with the African produced tobacco. These representations have been of vital importance in publicising peasant farmers' views, with consequent improvement in relationships between the statutory marketing bodies and the peasant

*Plate 4(b). Delegates at the third Congress of the National Farmers' Association of Zimbabwe at Domboshawa, 1982.*



***A TOTAL of 1 000 delegates turned up for the two-day National Farmers' Association of Zimbabwe congress which ends today. They are taking notes on what guest speakers said to use for report-back meetings.***

producers.

e) Effective Involvement in Agricultural Politics - The elevation of the Association to the national level has enabled it to be more and more involved in agricultural politics. The Association now has direct contact with government policy makers and the outside world.

An example of how the Association can now speak publicly on matters of policy is shown by an article in The Herald of the 22nd April 1981, which says

> "The President of the National Association said that lack of communication between the Government and communal farmers was contributing to the squatter problems. He said plans to resettle people in need of land should be published ..... In the absence of information about resettlement plans, rural farmers were beginning to think they were being neglected" (4)

The extent to which the Association is involved in agricultural politics is also demonstrated by the speech given by the President to 1,000 delegates at its third annual Congress on 6 September 1982, when he said that

> "Most of the research which has been undertaken in this country has been to serve commercial farmers. I believe time is ripe for more research to solve problems of the small farmer" (5)

The Government is therefore constantly kept informed of peasant farmers' feelings about their plans and institutions. In 1981, the President of the Association was also appointed to the Chavunduka Commission of Inquiry into the Agricultural Industry[12].

The Association's involvement in agricultural politics has effectively expanded to the international scene. For example, the peasant farmers were, for the first time in their history, represented by the Association's President at the Annual Conference of the International Federation of Agricultural Producers which was held between the 5th and the 15th of November 1980 in Buenos Aires, Argentina. The President also represented the Association at a Conference on Agricultural Production which was held

in China from the 2nd to the 15th May, 1981.

Both the agricultural extension assistants and the master farmers interviewed maintain that the Association's involvement in agricultural politics has improved the image of peasant agriculture immensely; peasant farmers have now been accorded access to parastatal agricultural credit sources; marketing institutions have started treating peasant produce with equal respect to that of the commercial sector; the infrastructural support base - roads, bridges, collection depots, etc. - in the Communal Lands is being considerably improved, and today the peasants' views on farming are respected, listened to and even consulted.

## 4. PROBLEMS ENCOUNTERED BY THE ASSOCIATION

Like all the Zimbabwean peasant farmers in Communal Lands, the members of the Association of Master Farmers' Clubs have been affected by a number of constraints. Most of these obstacles have, however, been thoroughly discussed in chapter five. It is therefore pointless to recount them all over again. There are, nonetheless, two problems which seem particularly peculiar to the Association of Master Farmers' Clubs, and hence deserve special attention at this point.

### 4.01 Conflict with Traditional Leadership

In pre-independent Zimbabwe traditional leaders - Chiefs, Headmen and Kraalheads - occupied, with the encouragement, protection and full support of the Central Government, a very special position of political, social and cultural authority. These leaders would not tolerate any organisation over which they had no full control. Some of them looked at the Association with suspicion and disfavour because they felt insecure and saw in it a threat to their authority. Some of the Clubs were even threatened with banning orders. The farmers tried to appeal to the District Commissioners but were told, in no uncertain terms, to obey the orders of

their traditional leaders. In some areas it therefore became exceedingly difficult to form formal clubs; the farmers were consequently forced to organize informal gatherings at irregular intervals at which successful peasant cultivators explained to their less successful colleagues the farming methods which had proved useful and effective. Everyone contacted during this research believed that interference by traditional leaders seriously retarded the progress of the Association of Master Farmers' Clubs.

The intransigence of some of these traditional leaders demonstrates that 'patriarchal rule' can be as great an obstacle to progress as bureaucracy. If the two combine, progress may be impossible. Such traditional and authoritarian administration of Communal Lands has prevented the rapid progress for which most peasant cultivators were prepared.

To solve some of these problems, the Association decided to involve and enlist the support of some of the more progressive traditional leaders. The Provincial Committee of the Association has, therefore, always included a representative from the Chiefs' Council, who has since helped to solve a number of problems of this nature.

### 4.02 Conflict with Government-Sponsored Co-operative Societies

It has already been noted that the success of the Association of Master Farmers' Clubs in providing an efficient and most reliable marketing service to its members posed a real threat to the existence of the government-sponsored co-operative movement, particularly in Masvingo Province, because many members of the latter were deserting it to join the Association. This problem started as early as 1970. As to be expected, the government co-operative movement waged a vigorous campaign against the Association's direct access to the statutory marketing boards so as to force all the peasant producers to sell their surplus through the co-operative societies. The real crunch came in 1974 when the Provincial

Co-operative Officer, backed by the then Deputy Minister of Agriculture, declared at the Association's Annual General Meeting held at Alvord Community Development and Training Centre, that it was illegal for the Association to sell its members' produce directly to the statutory marketing boards, especially the Grain Marketing Board and the Cotton Marketing Board. However, the Association's Provincial Chairman, in a well-prepared and articulately delivered speech, ably defended the position of the Association and strongly attacked the Co-operative officials for their hindrance to the progress of the Master Farmers' Clubs. The Association, which had been fully aware of these sinister motives, were cautious and therefore successfully avoided an open confrontation with the Co-operative Societies. But the relationship between the two organisations was strained throughout the decade.

However, despite all these problems, the Association has bravely soldiered on and served the needs and interests of its members as best as its limited resources permit.

## 5. ACHIEVEMENTS AND CONCLUSIONS

From the Association's activities and the services it offers its members, it seems correct to generalize that the 'raison d'etre' of the organisation is to transform peasant agriculture by making peasant farmers adopt modern farming practices and techniques of production which increase their agricultural productivity. The Association's achievements can therefore be correctly assessed by noting its impact on peasants' adoption of modern farming practices and techniques, and the consequent increase in peasant agricultural productivity.

### 5.01 Peasant Adoption of Modern Farming Practices and Techniques

It has already been mentioned that Alvord's agricultural extension work was a development strategy which purported to disseminate

modern farming methods among peasant farmers in Zimbabwe. The successful peasant innovators were awarded a certificate of competence and an ornate badge in recognition of their ability to adopt modern farming practices and improved techniques of production. This led to the establishment of the 'Master Farmers' Scheme' in 1934. Obtaining a Master Farmers' Certificate and a Badge has therefore been regarded as the criterion of a peasant farmer's success in adopting new agricultural production methods.

Table 7.7 above shows the contribution of the Association in promoting the diffusion of modern agricultural techniques. The Masvingo Agricultural Extension Office (Training) informed me that before the involvement of the Association in assisting to train the master farmers, the provincial annual average output of Master Farmers was a mere fifty. But with the Association's assistance in the scheme during the 1970s, the annual average output was raised to 253, which is five times more than the average of the previous decade. All the Master Farmers interviewed were, however, aware that acquisition of the Master Farmers' Certificate and the Badge was not, in itself, enough. They stated that they were expected to apply the skills and techniques they had acquired, to maintain and improve their farming standards; that they were required to lead others, by example and demonstration, and to do better than non-master farmers. The competitions, field-days and rallies already discussed above, were ample evidence to show that the Master Farmers continuously endeavour to improve their farming standards, and to show their efforts in diffusing new ideas in farming. There was also concrete evidence, obtained from an unstructured interview with non-master farmers in the neighbourhood of one Club, suggesting that the role of the Association in spreading modern techniques of production among the peasant farmers cannot easily be quantified. Some of the Master Farmers, however, admitted that they have not been able to apply all the knowledge they had learnt because of lack of adequate resources - for example, money or an appropriate equipment which a particular

innovation might require. Nevertheless, the Association has been an extremely effective vehicle for the diffusion of agricultural innovations.

## 5.02 Impact on Peasant Agricultural Productivity

The effects of adopted innovations can perhaps best be measured by examining changes in agricultural productivity levels. Marketing records obtained from the three District Branches of the Association studied show that there was a dramatic increase in grain productivity per hectare among the members of the Association. Table 7.12 gives the average maize and groundnuts yields per hectare of the members of the Chibi, Gutu and Masvingo District Branches of the Association.

Table 7.12 Average Maize and Groundnut yields in the three Districts Studied, Before and After joining the Association (N = 3,931)

| DISTRICT | FULL MEMBERS | AVERAGE MAIZE YIELDS IN BAGS PER HECTARE | | | AVERAGE GROUNDNUT YIELDS IN BAGS PER HECTARE | | |
|---|---|---|---|---|---|---|---|
| | | Before | After | % Increase | Before | After | % Increase |
| Chibi | 1,135 | 7.0 | 49.0 | 600% | 10.0 | 22.0 | 120% |
| Gutu | 1,995 | 10.0 | 57.0 | 470% | 7.0 | 20.0 | 186% |
| Masvingo | 801 | 12.0 | 52.0 | 333% | 15.0 | 30.0 | 100% |
| Totals | 3,931 | 10.0 | 54.0 | 440% | 10.0 | 22.0 | 120% |

Source: Masvingo Provincial Association Records, 1967-1981.

According to these figures, maize productivity per hectare has increased in each of the three Branches by over 300 per cent within a decade, while groundnut productivity increased by 100 per cent in Masvingo district and by 120 per cent in Chibi and 186 per cent in Gutu. This gives a combined average percentage increase of the two crops in the three districts of 440 per cent and 120 per cent respectively.

The marketing data obtained from the three Branches also show that there is a remarkable improvement in the quality of the members' crops.

*Plate 5(a). Maize stacks - correct drying methods, 1981.*

*Plate 5(b). Groundnut stacks - correct drying methods, 1981.*

*Plate 6. C.A. Implements demonstration work, 1981.*

Up to 1975, no peasant crop from Communal Lands in Masvingo Province could qualify for a top grade despite official denials that there was discrimination against peasant produce. The Association trained its members correct timing in harvesting each crop, and correct drying methods (Plates 5a and 5b) which allow the retention of optimum moisture content and minimize mould and fungal attack, and therefore enhance the crop's market value. Within five years, the Master Farmers' crops had reached such high quality that the Grain Marketing Board had no choice but to grade their crops first class. For example, by 1978 groundnuts from all the seven districts in Masvingo had achieved grade P1 (which is the highest Zimbabwe grade for this crop), raising the price from Z$12 to Z$26 per 84kg. bag. The maize for the members of the Master Farmers' Clubs was also able to fetch grade A, which raised prices from Z$2.50 to Z$5.00 per 93kg. bag.

This research also found evidence to show that in one district, Chibi, the pen-fed cattle which the Association sold to the Cold Storage Commission between 1970 and 1975 did not only increase in quantity but also in quality. For instance, in 1970 the members' cattle were only able to make the G.A.Q. grade, which is a "good average quality" grade. But by 1975, the farmers' animals could attain the Imperial Grades, that is, Chiller 1, Chiller 2, Chiller 3A and 3B, which are the Zimbabwean best-paying grades. In this same district, the Master Farmers' Clubs sold only 64 pigs to Colcom in 1970 at an average price of Z$31 each. But in 1975, they sold over 300 pigs of the triple 'A' quality, fetching between Z$65 and Z$84 per animal.

It seems clear from these statistics, therefore, that the agricultural output of the members of the Association of Master Farmers' Clubs has been steadily increasing since the formation of the organisation. The Provincial Agricultural Extension office in Masvingo put the average agricultural growth among the Association's members, for the period 1970 to 1980, at between 4½ per cent and 7 per cent per annum. This performance contrasts sharply with that displayed by the Zimbabwean peasantry as a

whole which, as shown in chapter four, is not only stagnant but is also seriously deteriorating in many parts of the country. Both their land management and agricultural productivity are evidently more advanced, as will be shown statistically in chapter nine, than that of the ordinary Zimbabwean peasantry. The Masvingo Agricultural Extension office and all the agricultural extension assistants interviewed were convinced that this satisfactory farming performance by these Master Farmers was largely due to the contribution made by the Association in three spheres. First, the majority of these master farmers, as already mentioned, were trained in modern farming techniques by the Association. In addition, the Association, at every level, has continued to impart the new and the latest information on various aspects of modern farming through its periodic courses, seminars, congresses, rallies, visits and the magazine produced and distributed to the members quarterly. Secondly, the Association has managed reasonably well to open collective access and provide fairly satisfactory co-operative sources of credit facilities to its members. The Association has also made its co-operative funds available to its members for borrowing, while at the same time encouraging its members to adopt the habit of relying on their individual savings for acquiring the agricultural input items which, as has already been shown, are vital in the implementation of most of the modern farming techniques needed for the transformation of agriculture. Thirdly, the Association has - through its periodic co-operative labour supply, co-operative ordering of inputs, and co-operative marketing of surplus - greatly accelerated the Master Farmers' agricultural output. In short, the Association has been able to offer those peasant farmers who chose to join it the basic farming skills, fairly adequate credit facilities and efficient agricultural supply and marketing services, all of which are supremely essential to the development of peasant agriculture.

## 5.03 Concluding Comments

The 'exploding' membership of the Association, and its elevation within the period of thirteen years, to the status of a national organisation, which caters not only for a selected section of the farming community but for every peasant farmer in Zimbabwe is a clear manifestation of the Zimbabwean peasants' will to accept and co-operate with economically useful and socio-politically respectable development strategies. Their reluctance to support Alvord's agricultural extension work, and their rejection of the government-sponsored agricultural co-operatives do not, therefore, seem to stem from 'sheer peasant conservatism and imperviousness to new ideas'.

This chapter has shown that the Association of Master Farmers' Clubs has reasonably succeeded as an agricultural co-operative because it has successfully 'pooled together' its members' collective resources (capital and expertise), and has also made adequate advances of capital and credit to its members, out of its own resources, and out of financial facilities administered by statutory bodies. The Association has also been very successful in acquiring for, and supplying its members with, a wide range of farm requisites; its performance in the collective marketing of the members' agricultural produce - both crops and livestock - has been an outstanding achievement (Table 7.11). It seems reasonable, therefore, to conclude that the Association of Master Farmers' Clubs has a bright future as an effective peasant agricultural development strategy.

An examination of the farming performance of the members of the Association of Master Farmers' Clubs in Masvingo Province shows that their agricultural output (Table 7.12) has been consistently increasing for a decade. Evidence available suggests that such sustained growth could only have been achieved through the application of a considerably high level of modern farming knowledge and techniques of production. It seems obvious, therefore, that the Zimbabwean peasant farmers have sufficient will and capacity to adopt modern agricultural innovations.

## Chapter 7. FOOTNOTES AND REFERENCES

7.1 The National Association of Master Farmers' Clubs used to be known as the Victoria Association of Master Farmers' Clubs until 1980 when it became a national organisation. In July 1982, it became the 'National Farmers' Association of Zimbabwe'.

7.2 The Department of Conservation and Extension was, until 1969, responsible for all extension services in Communal Lands.

7.3 These statistics were obtained from the President of the National Association of Master Farmers' Clubs in July, 1981 (The Herald, 16 July, 1981, p. 7).

7.4 The Secretary of the Provincial Association used to be the Extension Supervisor (Training).

7.5 The National Association of Master Farmers' Clubs was changed in July, 1982 to the 'National Farmers' Association of Zimbabwe' in order to enable the organisation to admit non-master farmers into its membership.

7.6 Words quoted from Hungwe (July, 1981) a leading member of the Chibi District Branch of the Masvingo Association.

7.7 An extension agent is a Zimbabwean terminology used to refer to an individual or a group of individuals engaged in extension work.

7.8 Master Farmer Score Sheet is a checklist designed by the Provincial Committee in consultation with Provincial Agricultural Extension Staff; it incorporates all the basic principles of good farming practice as laid down by Alvord (Appendix VI).

7.9 Agricultural hardware here excludes capital equipment and tools.

7.10 District Commissioner used to be called a Native Commissioner and is now called District Administrator.

7.11 The following grades are used to denote various qualities of cattle in Zimbabwe: Chiller 1; Chiller 2; Chiller 3A; 3B; G.A.Q.; F.A.Q.; Inferior.

7.12 The Chavunduka Commission was expected to present its Report by the beginning of 1982, but the Commissioners felt that the recommendations were not radical enough, and so had to postpone its publication.

## SOURCES OF QUOTATIONS AND REFERENCES

7.1 Hughes, A. J. B. 1974: Development in Rhodesian Tribal Areas: An Overview, p. 119.

7.2 Jordan, T. W. F. 1974: Extension Development in Tribal Farming: Rhodesia in the 1970s in Rhodesia Agricultural Journal, Volume 71(3), p. 72.

7.3 Riddell, R. C. 1981: Report of the Commission of Inquiry into Incomes, Prices and..... p. 58.

7.4 The Herald, 22nd April, 1981, p. 5.

7.5 The Herald, 7 September 1982, p. 3.

# CHAPTER 8

## THE CATHOLIC ASSOCIATION AGRICULTURAL CO-OPERATIVES

### 1. INTRODUCTION

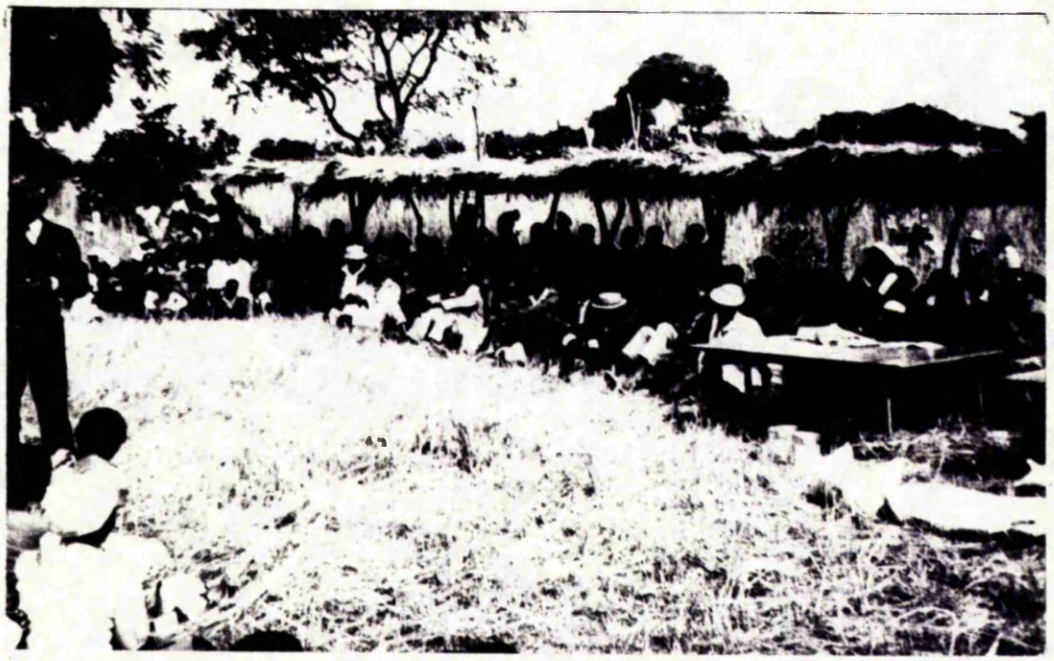
#### 1.01 Scope and Sources of Data

The Catholic Association Agricultural Co-operatives represent a small-scale 'package deal' peasant agricultural development programme. The programme was initiated and sponsored by the Catholic Association as one of its many development projects, operated and administered from Silveira House, a Catholic Leadership Training and Development Centre, on the outskirts of Harare. As a result, these co-operatives are often referred to as The Silveira House agricultural project, or programme, or scheme. This thesis will, therefore, use the same terms to refer to these Catholic Association Agricultural Co-operatives.

In order to evaluate the impact of The Catholic Association Agricultural Co-operatives on the transformation of peasant agriculture, this chapter will give a brief history of both the Catholic Association and the Agricultural Co-operatives initiated under its auspices; it will analyse the nature and organisation, growth and distribution of the co-operative groups. The activities and services undertaken and offered by these co-operatives will also be critically examined in order to assess the programme's contribution towards the motivation and agricultural 'education' of peasant farmers towards the diffusion of modern agricultural innovations, towards increased peasant land productivity and towards peasant capital formation.

The Catholic Association Agricultural Co-operative groups are, as will be shown in sub-section 2.03 below, distributed in various parts of all the Mashonaland Provinces[1] (Figures 3.8 and 8.2). But, because of

*Plate 7.* *Master Farmers at an agricultural rally, 1980.*



various reasons already dealt with in some detail in chapter two above, the samples of the Catholic Association farmers have been taken from only seven districts of Mashonaland East and Mashonaland West (Table 2.2). All the data used in this chapter were obtained from many sources connected, in a number of ways, with these agricultural co-operative groups. The most important of these sources are the 99 members of the Catholic Association agricultural groups and the twenty agricultural extension assistants (Table 2.4) interviewed during this research. Of equal importance, especially as sources of the recorded statistics quoted in this chapter, are the annual reports and the staff of the Silveira House Leadership Training and Development Centre. Valuable data were also obtained from extensive contacts made with peasant farmers at their courses (Plate 1a),during their field days (Plate 2), at their business meetings (Plate 3) and rallies (Plate 7). My participation in the farmers' ploughing, planting, weeding, and harvesting of their lands yielded extremely useful insights into the peasant farmers' decision-making processes and production techniques. Some data on The Catholic Association Agricultural Co-operatives were also derived from tertiary sources, particularly the national newspapers - The Herald and The Sunday Mail.

## 1.02 Historical Background

The Catholic Association (C.A.), which initiated the Silveira House Agricultural Project, is a Catholic organisation formed in Southern Rhodesia in 1940 to help in the development of the Catholic Church. The Association's membership is national, and in its heyday nearly every Catholic Mission or Parish had a Catholic Association branch. The primary objectives of the Catholic Association were to discuss religious matters and spread the faith, but occasionally general socio-economic issues, including agricultural development, were also discussed. The agricultural discussions were, unfortunately, never applied to the benefit of

peasant farmers for really two reasons. First, most of the Catholic Association leaders had themselves very little useful knowledge of agriculture, and almost no techniques of imparting it to others. Secondly, nearly all government departments regarded the handling of agricultural and/or economic matters among the peasants as the government's sole preserve.

However, in 1964, the Jesuit Fathers decided that Silveira House in Chishawasha, a Catholic Mission Farm, on the outskirts of Harare, should become a centre for adult education in leadership training and development. The Centre organised and ran courses in youth promotion and training, trade union leadership, civic awareness and leadership, women's clubs, and a few agricultural awareness courses, covering general aspects on the importance of intensive farming production. This approach bore no fruit as far as transforming peasant agriculture was concerned. The Silveira House staff realised that they ought to change their approach. But before they devised a new strategy the Centre felt well advised to examine critically and study thoroughly the reasons that had led to the failure of both public and private peasant agricultural development strategies.[2] These investigations revealed that the transformation of peasants to modern commercial farmers was more complex than simply providing extension services and working capital. Silveira House discovered that almost all the government projects had been imposed on an ill-prepared peasantry, and hence the implications of adopting modern innovations were largely unclear to them. The Silveira House investigations also showed that it had apparently not been realised in the past that peasants with scant resources ought to be encouraged to work in groups rather than as individuals.

From these findings, Silveira House Programme planners were able to devise and draw up, for their Catholic Association agricultural groups, a development strategy which sought to avoid problems that beset previous development efforts. According to the Permanent Secretary in the Ministry

of Lands, Resettlement and Rural Development, who was the Director of the Silveira House agricultural scheme during the time of this research, 'their strategy for agricultural development in Communal Lands' included the following elements: socio-political acceptability, constant awareness and motivation courses, adequate and consistent extension, viable loan schemes, the group approach, one-acre maize plots, and periodic critical external evaluation. This is why the Silveira House agricultural project is known as the 'package deal' development programme.

## 1.03 Project Strategy

### (a) Socio-political Acceptability

The Silveira House staff were, since the inception of the scheme, convinced that the project should be socially and politically acceptable to the District Commissioner, the Chief, the headman and the local farmers. Before an agricultural co-operative group is established, it has always been necessary to consult with the local District Commissioner and the traditional leaders, and to obtain their permission. The District Commissioner's support and the Chief's approval have been vital in ensuring that the organisation would not be misconstrued as political by the Central Government. Socio-political acceptance by the peasant farmers was also considered important because it engenders their interest and enhances their co-operation, participation and the feeling that the project belongs to them.

### (b) Constant Awareness and Motivation

Peasant farmers who, for many years, have been accustomed to producing for subsistence through the use of traditional methods, require some awareness and some motivation to produce for 'commercial' purposes, and to accept the use of alternative techniques of production.

Consequently, special awareness and motivation courses to transform peasant traditional perception and attitudes to farming to modern outlooks and aspirations were recommended, organised and run. The courses were designed to bring about an awareness among the peasants of the importance of the soil, the techniques of maintaining its fertility and the need to conserve it from destruction, and to show the economic benefits to be derived from the adoption of improved agricultural practices and methods. Farmers were encouraged to form,and work in,groups on their return home.

(c) Adequate and Consistent Extension

After attending awareness courses at Silveira House, the farmers would receive adequate extension services in various aspects of both animal and crop husbandry and group co-operative management mainly from the area field promoters and the government agricultural extension staff in the field. This extension service is backed up by a "follow-up" programme organised by the Silveira House staff. The purpose of these "follow-ups" is to assess the effort, discipline and spirit of self-reliance in each group so that appropriate assistance would be given where and when necessary.

(d) Viable Loan Scheme

The farmers who attended the awareness and motivation courses were instructed to apply sufficient and appropriate inputs for the one-acre plot under the scheme. The Silveira House project planners, however, realised that most peasant farmers in the Communal Lands could not afford the necessary working capital from their own resources which would enable them to implement the farming techniques they had learned. The Centre had to organise and provide a loan scheme, which was designed to assist each farmer for a period of three years. After this period,

every farmer under the scheme was expected to be self-reliant in providing adequate capital for his input requirements.

(e) Group Approach

Zimbabwean peasants are a people with scant material and technological resources, a people with a long tradition of communal living, where kinship bonds are a strong element in the organisation of the socio-economic activities of a given community. For these reasons, it was decided to adopt a development strategy which caters for farmers in groups rather than on an individual basis. The group approach was chosen because it would facilitate:

i) the bulk ordering of inputs to achieve economies of scale;

ii) the joint application and responsibility for acquiring and repayment of loans;

iii) the establishment of a sense of discipline, responsibility and healthy competition amongst group members;

iv) a reduction of farm labour shortage brought about by the immigration of the able-bodied to urban areas, by organising members into work groups as and when the need arises; and

(v) the bulk marketing of produce to achieve economies of scale.

These activities form, as will be shown under section three of this chapter, the hub of the co-operative services offered to the farmers by the Catholic

Association Agricultural Co-operatives.

(f) One-Acre Maize Plots

As the project was unique, the planners decided - largely for financial reasons - to choose a single and specific crop for the experiment on small plots. Maize was selected for the Catholic Association for two reasons. First, maize is both a staple and a cash crop; and secondly, most farmers in Zimbabwe already had a wide experience in the cultivation of the crop. One-acre plots were considered most ideal, for a start; larger plots could be tried as and when the one-acre plots proved successful.

(g) Critical External Evaluation

One aspect which had been neglected throughout the history of peasant agricultural development was a critical assessment of the effectiveness of government strategies by external evaluators. The Silveira House project planners agreed to invite external consultants, mainly from the University and various development agencies, to conduct periodic feasibility and viability studies, Such studies were meant to, and have actually, assisted the project promoters to be more aware of the shortcomings in their strategy and thereby make improvement and modifications where appropriate (L. T. Chitsike, 1980)[3].

1.04 Formation of the Co-operative Groups

When the development strategy was thus devised and established, the farmers could form agricultural co-operative groups. In 1968, the first two groups were formed by the members of the Beta and Rota Catholic Association Branches in Murewa District (Figure 8.2). The initiative to form the groups came from the farmers themselves, whose leaders went to Silveira House and requested the Centre to assist them with loans to

purchase the necessary agricultural inputs - fertilizers, seeds and insecticides. These groups were initially known simply as the "Catholic Association Agricultural Groups".

## 2. ORGANISATION AND DISTRIBUTION

### 2.01 The Aim and Objectives

The major aim of the Silveira House Agricultural Co-operative Scheme

> "is to help the African farmer to move from subsistence to cash economy which will enable him to support his family at home in his village and thereby prevent him from drifting into the towns with consequent harm to the dignity of a Christian home" (1).

This aim reflects the Catholic Association's central social objective which, to put it philosophically, recognises that the church does not cure souls 'in vacuo'; but that she cures them in bodies they dwell in and amid the concrete circumstances of their material existence. Both the members of the Catholic Association Agricultural Co-operatives interviewed and the Silveira House agricultural staff are very clear of this main aim of their co-operatives.

When the promoters of the project were asked how they hoped to achieve this aim they reported that they hoped to achieve it by:

(a) demonstrating that scientific agriculture does provide an admirable livelihood;

(b) providing an appreciation for the importance of and basic skills in the correct fertilizer usage, use of good seed, deep ploughing, compost making and the application of manure;

(c) encouraging livestock production, including poultry, pigs and rabbits, to help provide needed protein and additional sources of income, plus draught power;

(d) making farmers aware of the hazards of soil erosion and the need for careful soil conservation;

(e) providing young people with an awareness of the importance of agriculture, and with an opportunity to engage in farming activities, for instance market gardens, poultry, rabbits, and rural skills;

(f) encouraging and assisting in the formation of agricultural co-operative 'groups' by such local farming leaders who, assisted by a loan fund, can demonstrate the effectiveness and success of scientific farming methods, and that such methods can be easily performed by any peasant in a co-operative scheme; and

(g) encouraging such agricultural co-operatives to act as 'agents of both economic and social change' to the population of a given community.

In short, it seems fair to summarize that the main aim and objectives of the programme are to educate, demonstrate and prove to peasant farmers that the use of agricultural input materials, if correctly applied to crops, can yield higher returns than traditional methods of cultivation. The scheme was also intended to show that co-operative farming - the collective pooling together of resources, collective ordering of inputs and collective harvesting and marketing of produce - can make peasant producers capable of sustaining increased productivity levels with minimum

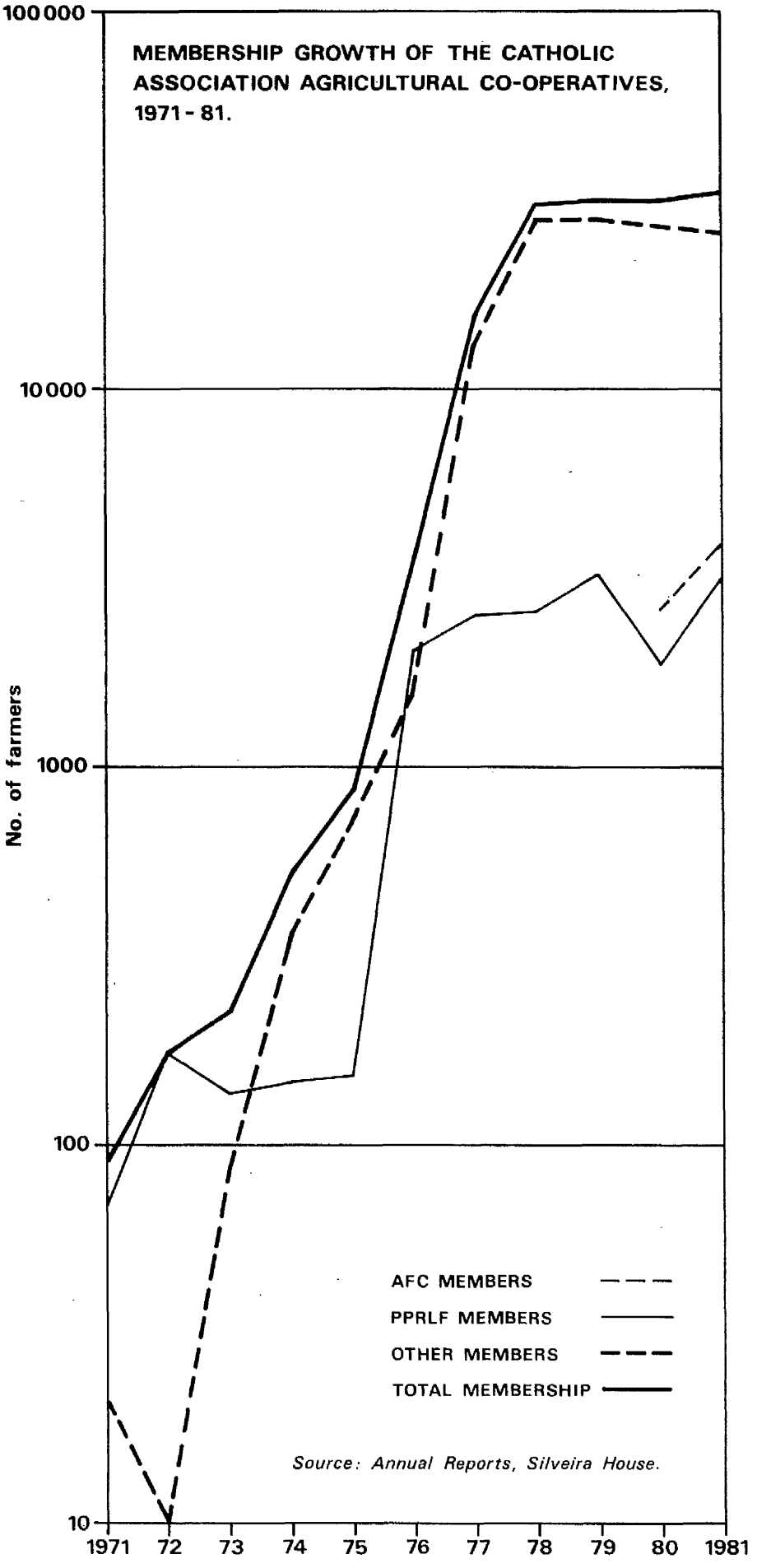

MEMBERSHIP GROWTH OF THE CATHOLIC ASSOCIATION AGRICULTURAL CO-OPERATIVES, 1971 - 81.
100 000
10 000
1000
100
10
No. of farmers
1971
72
73
74
75
76
77
78
79
80
1981
AFC MEMBERS
PPRLF MEMBERS
OTHER MEMBERS
TOTAL MEMBERSHIP
Source: Annual Reports, Silveira House.

Fig. 8.1

external financial assistance.

It must be noted, therefore, that although the formation of the Catholic Association Agricultural Co-operatives is a function of a different historical background from that of the Association of Master Farmers' Clubs, most of their objectives are similar.

2.02 Membership Growth

Initially, the membership of the Catholic Association Agricultural Co-operatives were confined to the members of the Catholic Association. But after the first five years, the Scheme opened its membership to every peasant farmer residing within the areas in which it operated (Figure 8.2).

When the two pioneer groups, Beta and Rota, were formally instituted they had 78 members, with 37 in the former and 41 in the latter, from several villages around the two areas. The initial success of these two groups was so dynamic that it was not long before the Scheme spread far and wide, particularly in Goromonzi, Murewa and Wedza districts. Table 8.1 below shows statistical data on membership growth during the last decade. For the first five years, total membership of the Co-operatives increased from 91 in 1971, to 863 in 1975, which gives an average increase of 154.4 per annum, while the members under the "pump priming revolving loan fund"[4] aid increased by an average of only 16.4 per cent per annum within the same period. But as from 1976 to the 1980/81 season, membership growth was phenomenal. For example, between 1975 and 1976, membership growth increased by over 323 per cent, and by 1978, a period of only three years, membership increased from 863 to 31,083, which is an overall increase of nearly 3,502 per cent.

Figure 8.1 also demonstrates membership growth trends between 1971 and 1981. An examination of this Figure and Table 8.1 shows that there was a dramatic increase of the 'pump priming revolving loan fund' financed

farmers from 1976 to 1979. This phenomenon was due to the fact that the international funding organisations - Misereor and Oxfam - had, as will be indicated below, increased their contribution to the Pump Priming Revolving Loan Fund. It is also noted that there was a marked drop among the members in this category in the 1979/80 season. The explanations for this drop are abundant. First, most of the farmers (2,603), who would have sought loans from the Pump Priming Revolving Loan Fund were, for the first time, assisted by the Agricultural Finance Corporation. Secondly, due to the effects of the liberation war some farmers, particularly in the Chiweshe, Madziwa and Mutoko areas (Figure 8.2), were moved from their homes into the so-called protected villages where there were restrictions on farming working hours and group organisations, and some farmers even fled the rural areas to become squatters in urban areas. Thirdly, some farmers in parts of the Goromonzi and Murewa Districts were prevented from normal farming activities by combatants. The farmers could not, therefore, organise the purchase of fertilizers, seeds and insecticides, nor could they sell their grain. Fourthly, many parts of the operational regions had suffered two consecutive years of drought, in 1978/79 and 1979/80, so that some farmers could not repay the loan during those two seasons, thereby reducing Silveira House's capacity to lend money to as many farmers as they otherwise would have been able to. There seems also to be emerging a pattern in the membership of "Other Members", in column five of Table 8.1. From the 1978/79 period, the membership of this category seems to be declining. But the promoters of the Silveira House Agricultural Scheme were quick to point out that this trend can only be sustained if both the Agricultural Finance Corporation and the Pump Priming Revolving Loan Fund increase their lending capacity to more peasant farmers. Despite these periodic fluctuations in different categories, the increasing overall membership figures prove, beyond doubt, the socio-political acceptability of the Catholic Association Agricultural Co-operatives to the peasant farmers.

Table 8.1 Membership Growth Between 1971 and 1981.

| Year | No. of Groups | AFC. Members | PPRLF. Members | Other Members* | Total Membership |
|---|---|---|---|---|---|
| 1971 | 4 | - | 70 | 21 | 91 |
| 1972 | 5 | - | 177 | none | 177 |
| 1973 | 12 | - | 139 | 88 | 227 |
| 1974 | 28 | - | 148 | 377 | 525 |
| 1975 | 44 | - | 152 | 711 | 863 |
| 1976 | 109 | - | 2,056 | 1,596 | 3,652 |
| 1977 | 152 | - | 2,523 | 13,304 | 15,827 |
| 1978 | 168 | - | 2,593 | 28,490 | 31,083 |
| 1979 | 176 | - | 3,285 | 28,497 | 31,782 |
| 1980 | 274 | 2,603 | 1,856 | 27,242 | 31,701 |
| 1981 | 534 | 3,998 | 3,184 | 26,233 | 33,415 |

Source: Annual Reports, Silveira House

* These are farmers who are not financed by Agricultural Finance Corporation and Pump Priming Revolving Loan Fund.

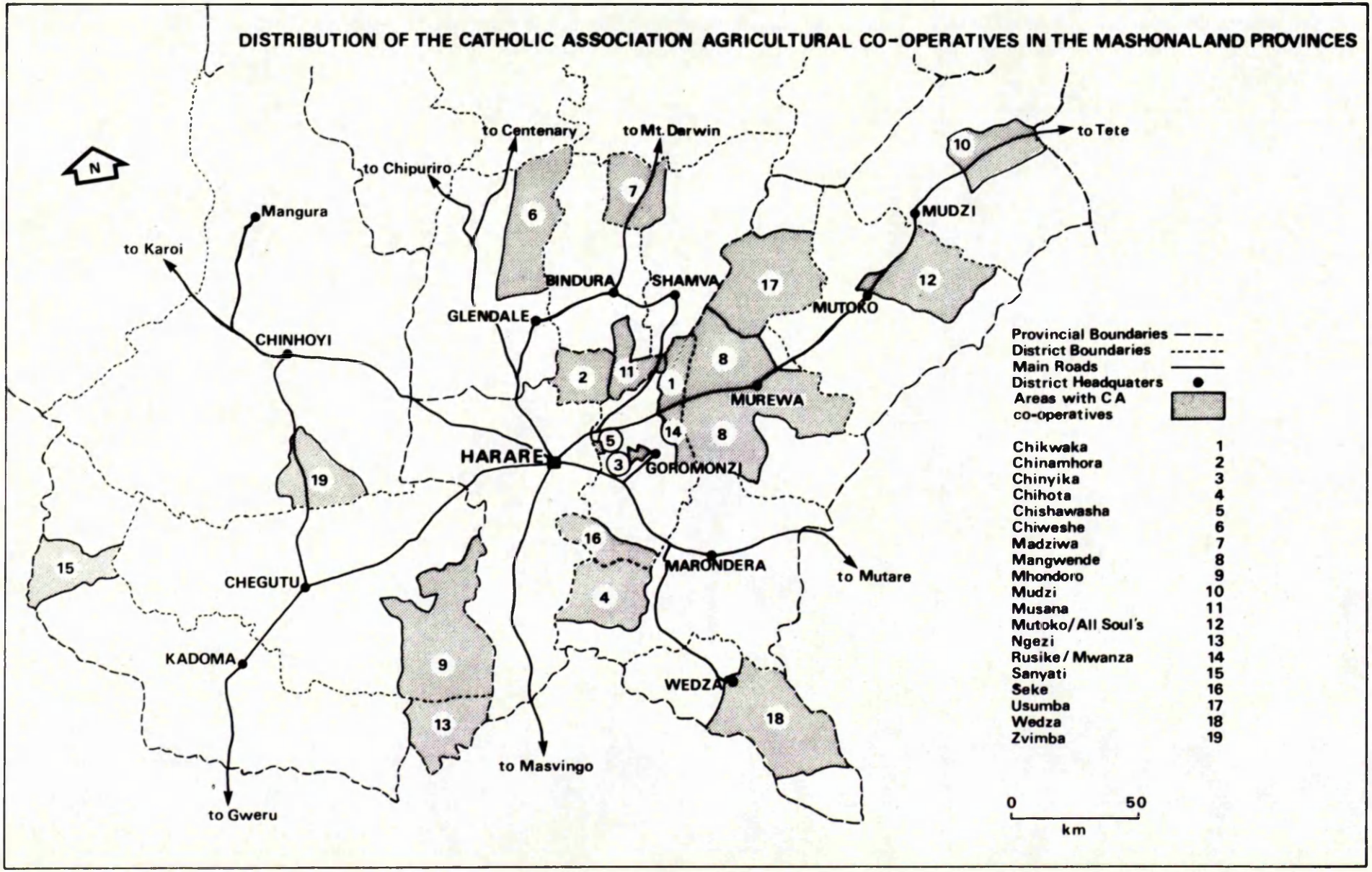

DISTRIBUTION OF THE CATHOLIC ASSOCIATION AGRICULTURAL CO-OPERATIVES IN THE MASHONALAND PROVINCES
N
to Centenary
to Mt. Darwin
to Tete
to Chipuriro
Mangura
to Karoi
MUDZI
BINDURA
SHAMVA
MUTOKO
GLENDALE
CHINHOYI
MUREWA
HARARE
GOROMONZI
MARONDERA
to Mutare
CHEGUTU
KADOMA
WEDZA
to Masvingo
to Gweru
Provincial Boundaries
District Boundaries
Main Roads
District Headquaters
Areas with C A co-operatives
Chikwaka 1
Chinamhora 2
Chinyika 3
Chihota 4
Chishawasha 5
Chiweshe 6
Madziwa 7
Mangwende 8
Mhondoro 9
Mudzi 10
Musana 11
Mutoko/All Soul's 12
Ngezi 13
Rusike/Mwanza 14
Sanyati 15
Seke 16
Usumba 17
Wedza 18
Zvimba 19
0
50
km

Fig. 8.2

2.03 The Distribution of the Groups

The basic unit of the Catholic Association Agricultural Co-operatives is a local C.A. agricultural group. Such a group consists of between twenty and thirty farmers who are, or have been, in receipt of loans and/or technical assistance. These groups are of two different types, namely: the 'Active' and 'Potential'. An active group is one whose members are nearly all in receipt of financial and technical assistance from either the Agricultural Finance Corporation or the Silveira House Pump Priming Revolving Loan Fund, while a 'potential' group is usually one which is newly formed and nearly all of its members have not been allocated any loans from the two main sources - the A.F.C. and the P.P.R.L.F. - but may be receiving some financial aid from the group's resources. The members of the potential groups, like their counterparts in the active groups, are invited and organised to attend awareness courses run by Silveira House, and to participate in co-operative activities and in some of the services organised and offered by the Catholic Association Co-operatives. Active groups are further divided into 'nursery scheme' groups and the weaned groups.[6]

In 1981, there were 534 active groups and 634 potential groups (Table 8.2), with a total membership of 33,415, as already shown in Table 8.1, giving an average membership of 28.6 farmers per group. As will be mentioned in subsection 2.04 below, these groups are distributed in the nineteen areas, shown in Figure 8.2, which form the ten regions in Table 8.2. The ten regions vary in size between the largest Mangwende/Uzumba, with an area of 6,246 square kilometres, and the smallest Sanyati, with an area of only 350 square kilometres (Table 8.2).

It can be seen in Table 8.3 and Figure 8.2 that the ten regions are distributed in twelve districts of the three Mashonaland Provinces. The ten regions cover an area of about 24,549 square kilometres (Table 8.2). This distribution pattern has been influenced almost entirely by two factors, namely: the administrative boundaries of the Catholic Church in

Table 8.2 The Area and Distribution of Co-operative Groups and Farmers in the Regions, 1981

| REGIONS[7] | AREA IN Sq. Km. | NUMBER OF GROUPS | | NO. OF FARMERS RECEIVING LOANS FROM AFC. AND PPRLF. | | |
|---|---|---|---|---|---|---|
| | | ACTIVE | POTENTIAL | A.F.C. | P.P.R.L.F. | TOTAL |
| Chihoła/Seke | 1,195 | 19 | 35 | - | 106 | 106 |
| Chiweshe/Madziwa | 1,703 | 10 | 35 | - | 249 | 249 |
| Goromonzi/Musana | 3,070 | 123 | 120 | 939 | 517 | 1,456 |
| Mangwende/Uzumba | 6,246 | 139 | 190 | 1,639 | 1,147 | 2,786 |
| Mhondoro | 2,582 | 71 | 100 | 696 | 640 | 1,336 |
| Mutoko/Mudzi | 4,082 | 6 | 42 | - | 182 | 182 |
| Ngezi | 586 | 51 | 75 | 400 | 253 | 653 |
| Sanyati | 350 | 12 | 25 | - | 90 | 90 |
| Wedza | 4,060 | 97 | 12 | 199 | N/A | 199 |
| Zvimba | 675 | 6 | - | 125 | - | 125 |
| TOTALS | 24,549 | 534 | 634 | 3,998 | 3,184 | 7,182 |

Source: Silveira House Annual Reports, and Calculations from Research Data, 1980/81.

Table 8.3 The Provincial, District and Areal Distribution of Groups

| PROVINCE | DISTRICT | AREA | GROUPS |
|---|---|---|---|
| MASHONALAND CENTRAL | Bindura | Musana | 36 |
| | Mazowe | Chiweshe | 30 |
| | Shamva | Madziwa | 15 |
| MASHONALAND EAST | Goromonzi | Chikwakwa/Mwanza | 85 |
| | | Chinamhora | 42 |
| | | Chinyika | 6 |
| | | Chishawasha | 10 |
| | | Rusike | 64 |
| | | Seke | 21 |
| | Marondera | Chihota | 33 |
| | Mudzi | Mudzi/Dendera | 17 |
| | Murewa | Mangwende | 297 |
| | | Uzumba | 32 |
| | Mutoko | Mutoko/All Souls | 31 |
| | Wedza | Wedza | 109 |
| MASHONALAND WEST | Chegutu | Mhondoro | 171 |
| | Kadoma | Ngezi | 126 |
| | | Sanyati | 37 |
| | Lomagundi | Zvimba | 6 |

Source: Research Information, 1980/81.

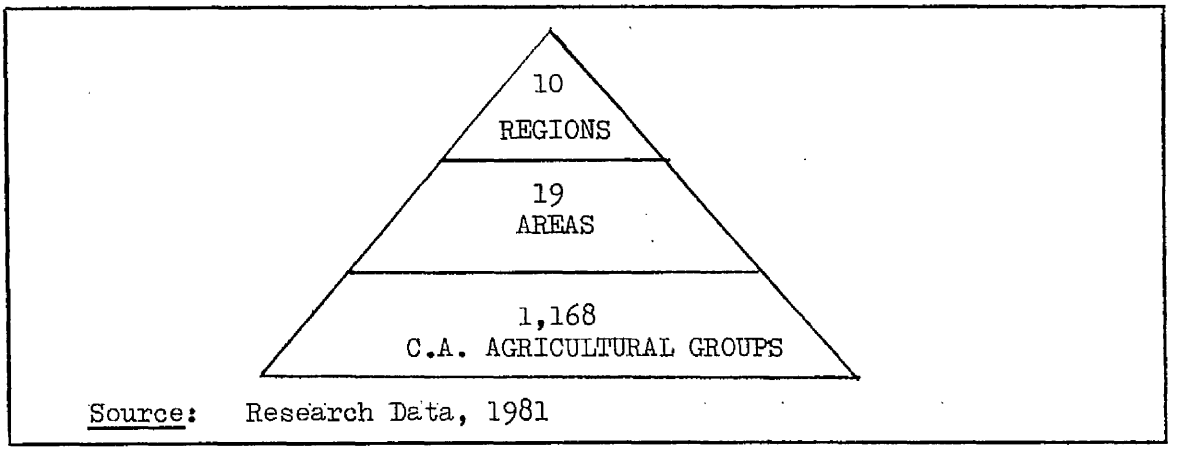
Zimbabwe, and by a dynamic Catholic Association local leadership. Eleven of the twelve districts covered by the Catholic Asscciation Agricultural Co-operatives are part of the Catholic Archidiocese of Harare which is run by the English Jesuits, who, in the person of the Revd. John Dove, initiated the birth of the Silveira House Agricultural Project. Secondly, it has already been mentioned that the first groups - Beta and Rota - were formed in Mangwende region. This region is known for its dynamic Catholic Association leadership who, for instance Gomwe, has been responsible for all the development that has occurred among the Catholic Association Agricultural groups. There is also ample evidence to show that effective Catholic Association leadership has been instrumental in the formation and growth of agricultural groups in all the ten regions.

## 2.04 Administrative Structure and Management

For administrative purposes, The Catholic Association Agricultural Co-operatives are divided into three levels. The basic organisational unit is the Catholic Association Agricultural group, which is run by an elected executive committee of six farmers. The group executive committee's main responsibility is to organise working parties for the performance of co-operative work, such as stumping and clearing, ploughing and planting, weeding and fertilizing, harvesting and shelling. The second tier, as shown on Figure 8.3, is an intermediate level which has no executive responsibility, but is very useful for organisational purposes. This area level often performs many co-operative activities, such as building a maize shed, under the direction and supervision of the Area Field Promoter (Figure 8.4). There were, during the time of this research, nineteen such areas. These nineteen areas form the ten regions alluded to above. The Regional Executive Committees consist of six elected officers and a Committee comprising two representatives from each group in the region. The Regional Executive Committees help to facilitate the

extension efforts of the field promoters and improve co-ordination among the agricultural groups. They are also responsible for organising the ordering of the inputs, their transport and distribution to the groups. They also organise the ordering of empty grain sacks and the marketing of the region's produce, the selection of course participants, field training and other agricultural activities. Figure 8.3 shows the three tiers. The Regions also appoint special subcommittees to deal with particular regional activities; for example, the transport sub-committees which oversee the smooth operation of the five-ton regional lorries and are responsible for their maintenance and repair, and for the appointment of suitable drivers and their salaries.

Structure of the C.A. Agricultural Co-operatives




Source: Research Data, 1981

Figure 8.3

The management of the Silveira House Scheme is vested in the central administrative staff organised in an hierarchical order operating from the Headquarters at Silveira House. The scheme is headed by a director, who is assisted by four central training and administrative staff of well-qualified and experienced agriculturists. The central staff are assisted by seven full-time Regional Co-ordinators, who are trained agriculturists. It must be mentioned that four regions are without Regional Co-ordinators, while one region - Mhondoro - has two Co-ordinators. Regional Co-ordinators are assisted by 28 Area Field Promoters who are men and women of highly

tested farming ability. Some Area Field Promoters service as many as twenty active groups and as many as 25 potential groups, covering an area of about 25 square kilometres on a bicycle.

Organisation of the Administration of the C.A. Agricultural Co-operatives, 1981.

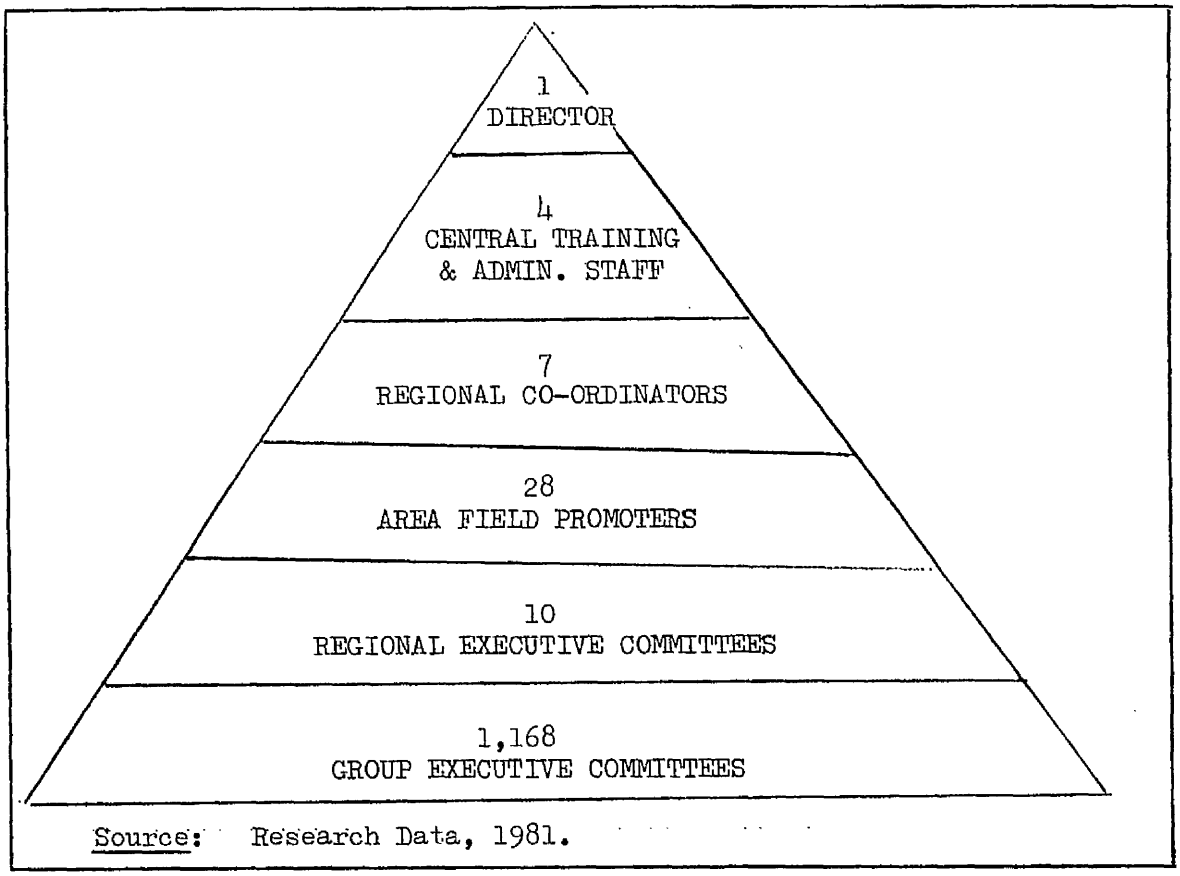



Figure 8.4

Figure 8.4 demonstrates the organisation of the administration of the Catholic Association Agricultural Co-operatives. The details of the duties of the Director and of the staff of the whole Scheme are given in Appendix X.

## 3. ACTIVITIES AND SERVICES

The agricultural promoting activities of the Silveira House Scheme and the services proferred to the farmers by the Catholic Association Agricultural Co-operatives can generally be divided into five broad areas, namely: awareness and extension services, credit facilities, the supply of agricultural inputs, labour supply and marketing facilities. These services,

as already indicated under 'project strategy', are considered vital to the success of any effort towards the transformation of peasant agriculture.

3.01 Awareness, Motivation and Extension

Because of the psycho-sociological set up of the peasant environment, because of the Africans' political resentment of the land tenurial allocation patterns, and because of discriminating economic constraints imposed on peasant producers, the majority of Zimbabwean peasant farmers were originally apathetic towards 'commercial' agricultural production. Both the Silveira House agricultural staff and the Catholic Association Agricultural Co-operative leadership interviewed during this research considered awareness and motivation courses to be the cornerstone of their scheme. These courses are regarded as a pre-requisite to the introduction and application of all other transformation forces. The courses are, therefore, designed not so much to teach new production techniques and skills in detail as to instill among the peasants a desire to change, and to raise their aspirations to produce for commercial purposes and engage in sustained agricultural growth and development.

Most of the awareness and motivation courses are residential, that is, selected group leaders of newly registered groups are invited to attend a five-day course held at Silveira House (Plate 1a). These farmers are given lectures on the need to change and on development through co-operative effort; on the importance of soil fertility and soil conservation; on the importance, types and use of fertilizers, pesticides, herbicides, livestock feeds and medicines; on modern scientific methods of crop production and cash cropping (varieties, concentration and care); on the importance and techniques of compost making; and on the use and maintenance of farm machinery and appropriate farm implements. A detailed programme of the Silveira House course content is illustrated on Appendix XI and

*Plate 8.* *Chishawasha demonstration maize plot, 1981.*

*Plate 9.* *Musana Communal Land rotational grazing camps, 1981.*

Appendix XII shows a typical programme format of the Agricultural Development Awareness Course. By the time the course is over, the farmers' horizons and attitudes, experiences and aspirations are all directed towards commercial farming.

These lectures are given by Silveira House full-time training and administrative staff, and by part-time lecturers from the government Department of Agricultural, Technical and Extension Services (formerly Conex and Devag), from Zimbabwe Seed Maize Association, Zimbabwe Fertilizer Company and Lever Brothers. These lectures are backed up with visits to the Chishawasha Maize Demonstration Plot (Plate 8), Henderson Research Station, Musana Communal Land rotational grazing camps (Plate 9), Nyakudya Market Gardens (Plate 10), Ruwa Rabbit Farm, a typical gully erosion scene at Mutake in Chinamora (Fig. 2.2) and to the input manufacturing companies.

Table 8.4 shows the number and types of residential courses organised and run at Silveira House in 1981. The Table shows that 357 farmers and 95 agricultural staff (regional co-ordinators and area field promoters) attended agricultural development awareness courses and programme planning and evaluation seminars at Silveira House. In addition, two meetings - one with the Prime Minister and the other with the Departments of Nutrition and Youth - were organised and held under the auspices of the Silveira House Agricultural Department, which is in charge of the administration of the Catholic Association Agricultural Co-operatives.

The impact of these courses on peasant agricultural development is reinforced and made more effective by an efficient agricultural extension service which is intended to assess the extent to which group leaders are succeeding in utilising the knowledge gained, and implementing the resolutions they make at the end of the awareness and motivation courses. Unlike these courses, extension services provide detailed practical demonstrations and/or advice on essential techniques in organising co-operative

*Plate 10.* *Nyakudya market gardens, 1981.*

Table 8.4 Residential Courses/Seminars held at Silveira House, 1981

| DATES | TYPE OF COURSE | ATTENDANCE |
|---|---|---|
| 5- 6 January | Agricultural Staff Seminar | 26 |
| 9-13 February | Urban Market Gardening Course | 12 |
| 23-27 February | Agricultural Development Awareness Course | 41 |
| 9-13 March | Agricultural Development Awareness Course | 39 |
| 15-20 March | Agricultural Development Project - Book-keeping | 61 |
| 27-30 April | Agricultural Development Awareness Course | 37 |
| 4- 5 May | Agricultural Development Staff Seminar | 24 |
| 11-15 May | Agricultural Development Awareness | 22 |
| 8-12 June | Agricultural Development Awareness | 40 |
| 22-25 June | Agricultural Development Awareness | 45 |
| 6-10 July | Agricultural Development Awareness | 24 |
| 3- 7 August | Agricultural Development Awareness | 36 |
| 7- 8 August | Agricultural Development Staff Seminar | 30 |
| 7-8 September | Integrated Staff Meeting (with Nutrition and Youth) | 22 |
| 12-13 October | Agricultural Staff Seminar | 15 |
| 2- 3 December | Agricultural Staff Meet the Prime Minister | 33 |
| Totals | 16 COURSES/SEMINARS | 507 |

Source: Silveira House Annual Report, 1981.

work groups for stumping group members' lands, for manure digging and carting it to group members' farms, for ploughing, planting, weeding, fertilizer application, cutting and collecting grass and maize stalk for livestock bedding to increase organic manure and for compost making, harvesting, bagging and marketing. Extension services also strive to offer basic skills in the planting of different crops, the application of fertilizers and other crop chemicals (pesticides and herbicides), crop moisture content testing, grain shelling, livestock breeding, especially poultry, 'piggery' and cattle fattening; soil conservation and the keeping of simple farm records. The programme of these extension activities is designed to be undertaken by three different, but complementary agents.

First, technical advice is provided to the members of the Catholic Association Agricultural Co-operatives by local government extension assistants who work closely with the Silveira House Scheme. Secondly, practical assistance in various aspects of farming (Appendix X) is offered by the Regional Co-ordinators and their Area Field Promoters. Thirdly, the Silveira House Central training and administrative staff carry out pre-planting and pre-marketing field training courses which are organised by area field promoters in conjunction with the agricultural group executives and the regional co-ordinators.

Pre-planting field courses are designed to provide the farmers with information on government pre-planting prices; on recommended types of fertilizers suitable for different regions; on the methods and rates of applying different types of fertilisers; on making row markers and yokes (Plate 6); and on the control of intestinal livestock parasites and of crop pests. There were 32 such pre-planting field courses in 1981, catering for 5,347 participants (Appendices XIIIa and XIIIb). Eighteen of these courses, attended by 2,556 farmers, were organised mainly for the P.P.R.L.F. beneficiaries, while the other fourteen were run for 2,791 farmers who receive loans from the Agricultural Finance Corporation.

Table 8.5 The Importance of Selected Training Methods (N = 212)

| Attendance or Visits | Positive Response | Negative Response |
|---|---|---|
| Agricultural Training Courses | 76% | 24% |
| Field Days (Green Shows) | 96% | 4% |
| Agricultural Demonstration Centres | 89% | 11% |
| Research and Specialist Stations | 56% | 44% |
| Training Centres (Colleges or Schools) | 53% | 47% |
| Community Development and Training Centre | 75% | 25% |

Source: Research Data, 1980/81.

The pre-marketing courses are essentially known as field days at a farmer's field adjudged the best farmed and most successful plot in the area. Such field days enable farmers (both members of the co-operatives and non-members) from the same area to come together, compare, evaluate and learn from the best farmer's land in a similar region, with similar rainfall, temperature, etc. In 1981, there were thirteen such field days attended by 5,400 farmers. Appendix XIV shows the details - areas, attendance statistics, names of successful farmers, groups, positions and marks scored by each farmer - of all the field training courses.

The importance attached to agricultural training courses - both residential and field days - is shown by the high positive percentage response given by the farmers interviewed for this research. The findings on this are shown on Table 8.5, which demonstrates that 76 per cent of the farmers interviewed during this research had attended courses in agricultural training 96 per cent had attended field days and 89 per cent had visited agricultural demonstration centres for farming educational reasons. All the visits made to research stations, agricultural training institutions and community development centres were made by the members of agricultural co-operatives only. But 54 per cent and 83 per cent of the nonco-operators in the sample had also respectively visited agricultural demonstration centres and attended field days for acquiring agricultural knowledge. This research has shown that most of the farmers visited the centres largely, and in some cases exclusively, for educational purposes. Further, investigations among the farmers in co-operatives have revealed that 67 per cent of them have increased the rate of their attendance and participation in agricultural courses and their visits to the agricultural and/or training centres since becoming members of agricultural co-operatives.

Table 8.6 shows ten sources of agricultural knowledge identified by 95 per cent of the peasant farmers interviewed. Of the ten sources, training

Table 8.6 Sources of Agricultural Knowledge in order of their Effectiveness (N = 202)

| Source/Technique | Effectiveness Score | Rank |
|---|---|---|
| Agricultural Training Courses/Seminars | 467 | 1 |
| Agricultural Demonstration Centres | 442 | 2 |
| Publications (booklets, pamphlets, magazines, etc.) | 422 | 3 |
| Radio programmes | 372 | 4 |
| Agricultural Research and Specialist Stations | 265 | 5 |
| Agricultural Field Days (green field shows) | 241 | 6 |
| Community Development and Training Centre | 222 | 7 |
| Agricultural Training Centres (Colleges and Schools) | 218 | 8 |
| Agricultural Slides | 195 | 9 |
| Agricultural Films | 186 | 10 |

Source: Research Data, 1980/81.

courses or seminars, with an 'effectiveness score' of 467, were ranked the most effective technique of disseminating agricultural knowledge. This is followed by visits to agricultural demonstration centres, with an effectiveness score of 442 points. Much of this evidence seems to suggest, therefore, that agricultural training, through awareness and motivation courses and extension services, is one of the most important activities undertaken and performed successfully by the Catholic Association Agricultural Co-operatives.

### 3.02 Provision of Loan Facilities

The Silveira House Agricultural Project planners were aware from the very beginning that their noble efforts in effecting changes among the peasants' farming attitudes, in raising their economic aspirations and in imparting basic modern agricultural skills to the peasants would be a waste of time unless the skills so acquired were to be implemented. But one of the basic requirements for the implementation of these skills was capital for purchasing the necessary inputs. Yet, unfortunately, as has already been mentioned, the majority of the peasant farmers could not afford this capital. Silveira House and the Catholic Association were aware that the Rhodesian Government would not provide their members with credit facilities; and both were equally aware and convinced that some form of financial aid was indispensable, particularly in the initial stages of development, for the achievement of sustained agricultural growth and eventual transformation. It was therefore decided to establish a fund to assist the Catholic Association Agricultural Co-operative members with capital. Finance was provided by Misereor and Oxfam, a German and a British organisation respectively, whose funds are earmarked for the development of the poor and underprivileged peoples of the developing world.

The Fund began offering interest-free loans to the Co-operative

members in 1970 from a pump priming revolving capital pool of slightly over Z$ 2,000. This Fund has, within a decade, been increased to Z$ 63,000. In addition, the Scheme has managed to secure access to public loan facilities for some of its farmers. Nearly all the active groups and about 50 per cent of the potential ones have now formed viable Savings Clubs, capable of servicing an appreciable proportion of the members with loans from their own resources. During the time of this research, 1980/81, the Catholic Association Agricultural Co-operatives were administering, for its members, three types of loan schemes, with funds from as many as seven sources.[8] The three types are the Nursery Group loans, the Agricultural Finance Corporation Group loans, and the Micro-Project Fund.

(a) The Nursery Group Loan Scheme

This scheme is administered entirely by and from Silveira House. The scheme caters for both new and old groups which have not been financed by the Agricultural Finance Corporation. Basically, this is a 0.4 hectare maize scheme, and provides the farmer with all the necessary inputs for 0.4 hectare of maize. The current cost (1981/82) of 0.4 hectare inputs - seeds, fertilizer, lime and insecticides - for maize is Z$ 60.00. The scheme offers an interest-free short-term loan to cover between half and three-quarters of the cost of 0.4 hectare. The loan is repayable at the time of marketing. Each farmer is encouraged to contribute between 25 and 50 per cent of the total cost.

The Nursery group scheme normally supports a group for three successive years. After three years, the group is expected to have formed sufficient capital of its own through its Savings Club to be able to support itself. Such a group is then 'weaned' off the nursery scheme and is then recommended for access to the Agricultural Finance Corporation small-scale peasant scheme.

As shown in Table 8.2 above, the Nursery scheme lent money to 3,184 farmers in 1981. Research findings have shown that this works out to an average loan of Z$ 32.35 per farmer.

(b) Agricultural Finance Corporation Group Loans

This loan scheme caters for the experienced members in the 'weaned' groups which are recommended for support by Silveira House. Unlike the Pump Priming Revolving Loan Fund, for the Nursery Scheme, whose finances come from private sources, the Agricultural Finance Corporation is a parastatal organisation whose funds are government guaranteed. The Corporation can, therefore, afford to fund inputs enough for 2.0 hectares of cropping per farmer. These loans are deposit-free but a borrower pays an interest of 9 per cent over and above the total loan for the inputs. Like the Nursery scheme the Agricultural Finance Corporation allocates its funds to the members of the Catholic Association Agricultural Co-operatives on a group basis as opposed to the individual system. The former system is preferred, because it facilitates administrative processes and guarantees 100 per cent loan repayment rate.

In 1981, the Catholic Association Agricultural Co-operatives managed, as shown on Table 8.7, to secure over Z$ 1.333 million from the Agricultural Finance Corporation to fund for the inputs for nearly 4,000 of their members. The statistics on this Table work out to an average loan of Z$ 333.53 per farmer, which is sufficient to pay for the inputs of nearly 2.3 hectares of maize at the 1981/82 input prices.

(c) Micro-Project Fund

The term 'micro-project' is used to refer to a number of fixed asset projects which form part of the agricultural enterprise. The micro-project fund covers capital outlays for these assets which include such farming implements as scotch-carts, shellers, ploughs, cultivators, harrows,

scales, sprayers, etc., vehicles and buildings for the co-operative use of the farmers. Oxfam has generously funded for the purchase of a number of these projects. Misereor has also helped in the purchase of a lorry and the Zimbabwe Trust Fund has also paid for the completion of grain siloes and for the acquisition of platform weigh scales. Financial assistance for these projects comes in forms of grants rather than loans, and the donors insist on a 50/50 payment basis.

Table 8.7 Agricultural Finance Corporation Loans for the Catholic Association Agricultural Co-operatives, for 1981/82 inputs.

| AREA | NO. OF FARMERS | TOTAL AMOUNT (Z$) |
|---|---|---|
| Chikwaka | 126 | 51,683.00 |
| Chinamhora | 395 | 108,286.00 |
| Chinyika | 26 | 6,864,00 |
| Rusike | 242 | 93,267.00 |
| Mangwende | 1,609 | 577,392.00 |
| Uzumba | 30 | 11,303.00 |
| Wedza | 199 | 52,445.00 |
| Ngezi | 400 | 140,000.00 |
| Musana | 150 | 67,182.00 |
| Mhondoro | 696 | 203,800.00 |
| Zvimba | 125 | 31,250.00 |
| TOTAL | 3,998 | Z$ 1,333,472.00 |

Source: Silveira House Annual Report, 1981.

Table 8.8 shows the number of scotch-carts, platform weigh-scales and maize shellers, bought under the 'micro project' scheme between 1977 and 1981. Scotch-carts are necessary for countless forms of basic farm transportation - carting inputs from the co-operative delivery points to individual members' fields, manure from either compost heaps or livestock pens to fields, crops from fields to the farmers' villages, and the farmers' surplus produce to marketing collecting points. This scheme has enabled the Catholic Association Agricultural Co-operatives to acquire 66

Table 8.8 Implements Acquired Through Micro-Project Scheme 1977-1981.

| IMPLEMENT | NUMBER AND YEAR OF PURCHASE | | | | | TOTAL PURCHASED |
|---|---|---|---|---|---|---|
| | 1977 | 1978 | 1979 | 1980 | 1981 | |
| Scotch-carts | 21 | 9 | 10 | 26 | 0* | 66 |
| Platform weigh-scales | 7 | 6 | 2 | 2 | 8 | 25 |
| Maize Shellers | 2 | 3 | 1 | 2 | 14 | 22 |

Source: Silveira House Annual Report, 1981.

* No scotch-carts were purchased in 1981, because they were unavailable from the C.A. Agricultural Co-operatives' main suppliers, F. D. Arian.

scotch-carts within five years.

Platform weigh-scales are very important to ensure that the farmers bag accurate masses for each of the crops they sell to the Grain Marketing Board (Appendix XV) because the Board does not pay for excess mass, but it underpays for underfilling. The scheme has, for the past five years, helped the Co-operatives to acquire 25 scales.

The maize shellers replace the peasant traditional methods of shelling maize through either beating the cobs with sticks or rubbing cobs on rock surfaces. These methods are tiresome, slow and cause heavy grain damage, which always leads to down-grading of the grain at the Grain Marketing Board. All the members of the Catholic Association Agricultural Co-operatives interviewed highly appreciated the importance of the maize shellers.

The micro-project fund has also been used to enable the members of the Catholic Association Agricultural Co-operatives to acquire three five-ton lorries for the Goromonzi, Mangwende and Mhondoro Regions (Plates 11a and 11b). Their importance in the transportation of both the input supplies and the peasant produce cannot be overstressed.

The above statistics of the number of the peasant farmers who received funds through the Catholic Association Agricultural Co-operative Scheme, and of the large amounts of money spent on financing huge quantities of agricultural inputs and various projects seems to be clear evidence that the Scheme has successfully enabled its members to get access to very effective and reliable credit sources. It must, however, be stated that this suggestion will become even clearer and more convincing when the input items purchased are analysed and the achievements of the loans are discussed elsewhere in this chapter.

*Plate 11(a). C.A. Co-operative lorry, Mhondoro, 1981.*

*Plate 11(b). C.A. Co-operative lorry, Mangwende, 1981.*

3.03 Supplying Agricultural Input Items

It has already been repeatedly noted elsewhere in this thesis that the Zimbabwean agricultural institutions have not been favourably disposed towards peasant farming. Consequently, it has not been easy for the peasant farmers to acquire the necessary agricultural inputs even if they had sufficient capital to purchase some. The role of the Catholic Association Agricultural Co-operatives in supplying agricultural input items to the members has, therefore, been of no small importance. The first supplying task accomplished by the Catholic Association Agricultural Co-operative Scheme was to enable the members to pool together their financial resources to facilitate the bulk ordering of the necessary farming input items. Because the organisation is capable of buying, as shown on Table 8.10, over 16,700 bags of fertilizers, over 3,200 bags of insecticides and over 3,300 bags of maize seeds, most of the input manufacturing companies have been well disposed towards the requirements of the Catholic Association farmers. Both the Zimbabwe Fertilizer Corporation and the Zimbabwe Seed Maize Association have been, for the past ten years, willingly and adequately offering all the items ordered by the Catholic Association farmers. Even in 1980/81, when demand for one brand of fertilizers - Ammonium Nitrate - was far more than what the fertilizer companies had been able to produce, the Catholic Association farmers got nearly 90 per cent of what they had ordered.

Secondly, because the members of the Catholic Association Agricultural Co-operatives are trained to plan and place their orders in time, the Zimbabwe Fertilizer Corporation has been able to offer the farmers a substantial 'Early Delivery Rebate'. This scheme classifies the order into six classes - A to F - according to the date each order is submitted. Table 8.9 shows the percentage rebates offered if the orders are placed by the dates stipulated. The rebate scheme is intended to encourage the farmers to order their inputs early in order to ease administrative pressure on

the companies and to ease the strain on the company's transport system. Because of the efficient co-operative ordering system of Silveira House, all the fertilizer orders were submitted by May, enabling the farmers to receive rebates of between 9 and 6 per cent.

Table 8.9 Early Delivery Rebates

| ORDER | DATE PLACES | PER CENT REBATES |
|---|---|---|
| A | By 31 March | 9 |
| B | By 30 April | $7\frac{1}{2}$ |
| C | By 31 May | 6 |
| D | By 30 June | $4\frac{1}{2}$ |
| E | By 31 July | 3 |
| F | By 31 August | $1\frac{1}{2}$ |

Source: Zimbabwe Fertilizer Company.

In addition to these early delivery rebates, most of the input supplying companies offer up to 5 per cent discount for bulk buying, an operation which an individual peasant farmer cannot afford.

The fourth advantage the farmers derive from the co-operative input supply services offered by the Catholic Association Agricultural Co-operatives is the physical delivery of the input items from distant supply points, usually urban centres, to the farmers in rural areas. It has already been noted that the Catholic Association farmers now operate three five-ton lorries (Plates 11a and 11b) and 66 scotch-carts (Plate 12). These lorries are an asset in delivering most of the inputs to the regions in time for distribution with the 66 scotch-carts to the farmers in the various areas. Also, because the organisation deals with inputs in bulk, it is possible for it to hire additional transport, at reasonably reduced cost, to augment the members' own transport facilities.

*Plate 12. Co-operative scotch-cart carrying compost, 1981.*

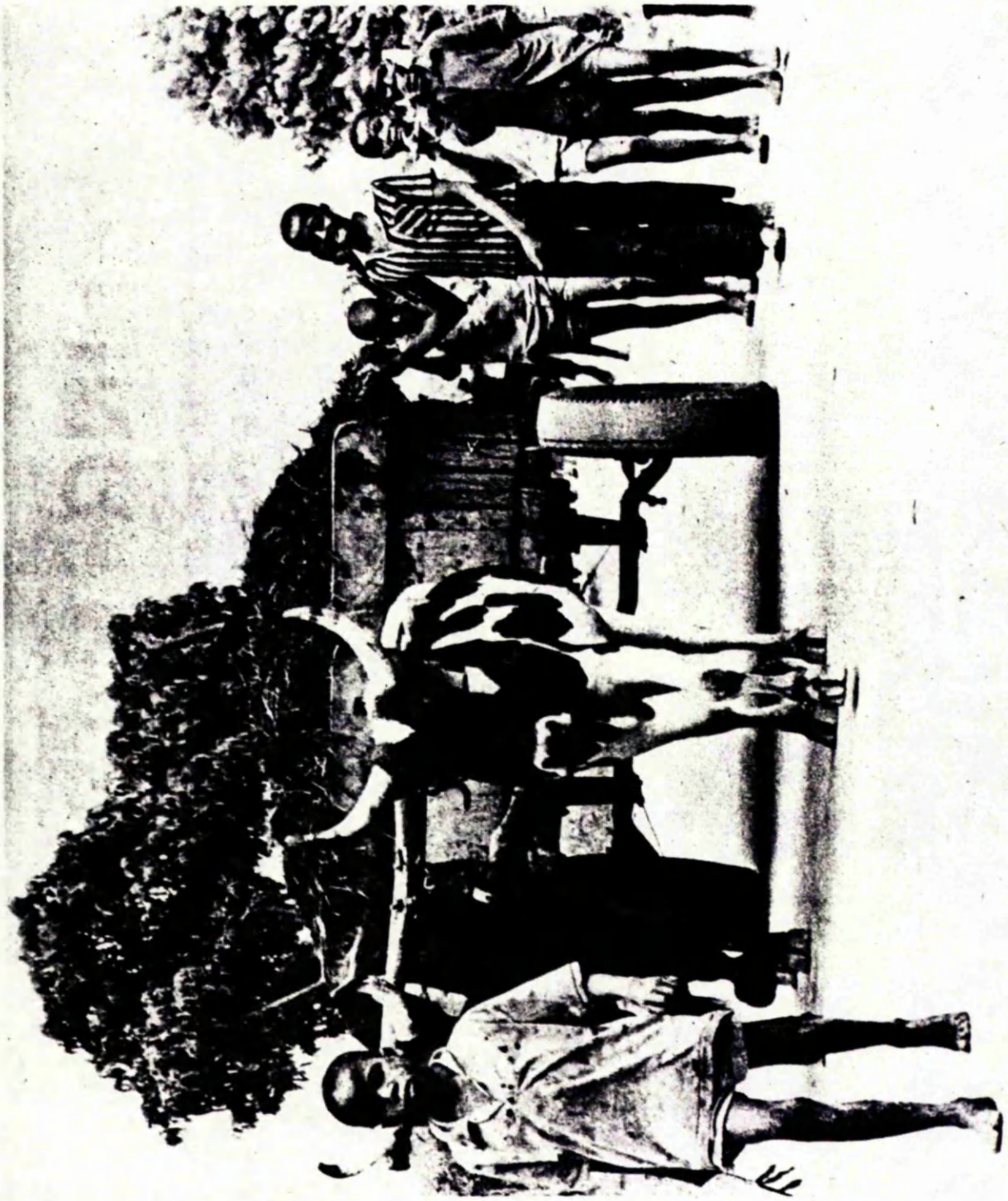


Table 8.10 Input Orders for the 1981/82 Season.

| AREA | FERTILIZER | | INSECTICIDES | | MAIZE SEED | | TOTAL |
|---|---|---|---|---|---|---|---|
| | 50kg. Bags | Cost (Z$) | 2kg. Bags | Cost (Z$) | 10kg.Bags | Cost (Z$) | VALUE (Z$) |
| Mangwende | 5,870 | 54,341.64 | 1,162 | 980.51 | 1,158 | 6,914.20 | 62,236.35 |
| Chishawasha | 971 | 9,026.92 | 175 | 146.47 | 174 | 1,839.50 | 11,012.89 |
| Chiweshe | 269 | 2,525.44 | 53 | 44.48 | 162 | 1,325.20 | 3,895.12 |
| Mutoko | 680 | 7,033.80 | 40 | 33.45 | 176 | 1,003.20 | 8,070.45 |
| Musana | 1,243 | 11,636.93 | 252 | 210.97 | 132 | 1,399.20 | 13,247.10 |
| Chinamhora | 505 | 4,651.94 | 101 | 85.42 | 106 | 1,094.20 | 5,831.56 |
| Seke | 300 | 2,716.68 | 60 | 52.80 | 60 | 572.30 | 3,341.78 |
| Mhondoro/Ngezi | 5,026 | 46,481.99 | 980 | 819.79 | 1,004 | 8,844.10 | 56,145.88 |
| Rusike | 60 | 555.34 | 12 | 10.06 | 12 | 127.20 | 692.60 |
| Chihota | 285 | 2,637.85 | 57 | 49.26 | 57 | 403.30 | 3,090.41 |
| Sanyati | 727 | 7,681.93 | 149 | 1,758.94 | 83 | 473.10 | 9,913.97 |
| Chikwaka | 791 | 7,281.17 | 187 | 155.21 | 199 | 1,359.70 | 8,796.08 |
| TOTALS | 16,727 | 156,571.63 | 3,228 | 4,347.36 | 3,323 | 25,355.20 | 186,274.19 |

Source: Silveira House Annual Report, 1981.

To fully appreciate the importance of the input-supplying role of the Catholic Association Agricultural Co-operative Scheme, one needs to look at Table 8.10, which reflects the amount of money spent by the organisation on the inputs and the quantities it supplied in 1981. The money spent on the three selected inputs has increased almost fourteen times within a period of only six years, from 1976 to 1981, while the quantities of each of the three inputs have, as shown in Table 8.11 dramatically increased. It must be mentioned that the statistics shown on Tables 8.10 and 8.11 are from the Pump Priming Revolving Loan Fund only, and thus exclude the inputs acquired by funds from the Agricultural Finance Corporation, which in 1981 was well over Z$ 1 million, and from the Micro-Project Fund. It means, therefore, that the organisation handled and supplied more than seven times the amount of inputs shown in Table 8.10.

All the 99 members of the Catholic Association Agricultural Co-operatives interviewed were unanimous in stating that the supply of such quantities of inputs could never have been possible without the reliable services of the organisation. This view is endorsed by the Goromonzi Regional Co-ordinator (1981), who seems to sum up the views of many other officials (both public and private), when he stated that

> "The input supplying services provided by the Scheme are as much valuable as the provision of the funds for the purchase of these inputs" (2)

### 3.04 Labour Supply

As already stated elsewhere in this thesis, the Catholic Association Agricultural Co-operatives supply collective labour as one of their co-operative activities, and hence the name 'Mushandirapamwe' (meaning working together) often used to refer to the Catholic Association Agricultural Co-operative Scheme. The farming operations which are performed collectively vary according to special circumstances, and in

Table 8.11 Selected Input Supplies and their Cost, 1976 to 1981.

| INPUT | 1976 | | 1977 | | 1978 | | 1979 | | 1980 | | 1981 | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | QUANTITY | COST (Z$) | QUANTITY | COST (Z$) | QUANTITY | COST (Z$) | QUANTITY | COST (Z$) | QUANTITY | COST (Z$) | QUANTITY | COST (Z$) |
| FERTILIZER (50kg. Bags) | 1,974 | 10,678 | 5,673 | 33,939 | 5,503 | 35,814 | 4,233 | 23,480 | 9,051 | 74,534 | 16,727 | 156,572 |
| INSECTICIDES (2kg. Bags) | 423 | 348 | 722 | 578 | 524 | 409 | 456 | 405 | 1,767 | 1,596 | 3,228 | 4,347 |
| SEEDS (10kg. Bags) | 469 | 2,450 | 1,118 | 6,429 | 923 | 5,428 | 667 | 3,461 | 1,771 | 11,594 | 3,323 | 25,355 |
| TOTALS | - | 13,476 | - | 40,946 | - | 41,651 | - | 27,346 | - | 87,724 | - | 186,274 |

Source: Silveira House Annual Reports, 1976 to 1981.

accordance with the farming calendar for Zimbabwe which starts from 1 October and ends about the 30th of September the following year, as summarised in Appendix XVI.

The 'Mushandirapamwe' group members are organised to provide collective labour either for demonstration purposes - for instance, spraying insecticides or herbicides - or for the purposes of making light work of a heavy job.

Throughout my research visits and contacts with the Catholic Association Co-operative groups, I discovered that most of such operations as winter ploughing, compost making and manure application, contour cleaning, ploughing and planting, fertilizer application and weeding, pest control and fertilizer top dressing, harvesting and preparation for marketing, were performed collectively. Each group divides itself according to villages, which organise themselves in such a way that they work on individual members' plots in turns. Although, as Chitsike (1982), the former Director of the Silveira House Agricultural Project notes:

> "The farmers hold individual plots but [they] pool their labour and resources, working together on each other's plots" (3).

The importance of co-operative labour supply was aptly described by one elderly farmer, in Goromonzi, when he said, in a Shona proverb: "Rume rimwe harikombi churu" (a dozen hands make light work). All the 99 C.A. farmers interviewed maintain that their crop yields have increased because, to put it in the words of one of the group members,

> "We plough together, plant together, weed together, harvest together, shell maize together, sell together and look for transport together" (4)

Co-operative labour supply has been both educational and a reliable source of labour force in a situation which is so bedeviled with the absence of able-bodied men and women.

3.05 Marketing Facilities and Services

According to the peasant farmers interviewed, one of the most important activities of the Catholic Association Agricultural Co-operatives is the marketing of the members' produce. The facilities and services offered to the farmers were intended to provide an efficient and reliable alternative marketing channel to those which then existed - the government-sponsored co-operative societies and the Grain Marketing Board agents (local traders). The facilities and services offered include the provision of direct access to appropriate marketing boards, the detailed preparations for marketing each crop, provision of empty sacks and cotton bales, the provision of transport either to central pick-up points or direct to an appropriate marketing board, and the paying out of the farmers' net profits.

Silveria House applied and secured, on behalf of the Catholic Association farmers, a Grain Marketing Board 'number' which enables its members to market collectively their produce direct to the Grain Marketing Board. This has made it possible for the Catholic Association peasant farmers to bypass the middle-men, thereby avoiding paying handling charges exacted on all peasant producers who sell through the government-sponsored co-operatives or the local approved grain buyers.

The Grain Marketing Board is very particular about the quality and quantity of the grain which is sold to it. The C.A. co-operative groups provide strict supervision to ensure that all the grain to be marketed through them is of optimum moisture content, is of acceptably uniform quality and must be of the recommended weight (Appendix XV). Many groups need help in checking correct moisture content and in grading their products. The groups provide weighing scales to ensure that each bag is properly weighed. In addition to demanding high quality grain, the G.M.B. insists on new sacks. Because the C.A. groups buy empty sacks in bulk they are able to secure them on credit and at reasonable reduced price.

These services are so fundamental that one Regional Co-ordinator cannot see how a large proportion of his farmers could manage without the co-operative help of their fellow members.

After bagging all the crops for market, the products must be transported firstly to regional or area assembly pick-up points, where the products are finally collected for delivery to the Grain Marketing Board or to the Cotton Marketing Board. The operations are fraught with problems. Firstly, there are insufficient means of transport available to the peasant cultivators. Secondly, costs for hiring transport from private operators are exorbitant. Thirdly, most of the roads from distant rural areas are rutted and sometimes impassable. Co-operative transport facilities - scotch carts and the three lorries - and collective storage facilities - grain siloes or maize sheds - have, therefore, been of vital importance. In addition to the use of their own transport, the C.A. co-operative groups have been able to engage the services of hired transport for the delivery of their members' produce to the appropriate marketing boards at relatively cheaper cost than an individual farmer would be charged if he/she was hiring it single-handed.

In spite of all these problems, the Catholic Association Agricultural Co-operatives have, for many years, successfully marketed together a good deal of maize, groundnuts, cotton, sunflowers and sorghum. Table 8.12 gives some statistics of the volume of selected crops marketed and of the funds handled between 1978 and 1981. Like the Association of Master Farmers' Clubs, the Catholic Association Agricultural Co-operative Scheme seems to be handling the marketing of its members' produce with remarkable efficiency. All the members interviewed were equally appreciative of the facilities and services offered by their organisation.

Table 8.12 Marketing Data for Maize and Groundnuts for 1978 to 1981.

| SELECTED CROPS | 1978 | | 1979 | | 1980 | | 1981 | |
|---|---|---|---|---|---|---|---|---|
| | Bags | Value (Z$) | Bags | Value (Z$) | Bags | Value (Z$) | Bags | Value (Z$) |
| Maize | 9,837 | 46,517.00 | 8,162 | 47,378.37 | 19,072 | 160,320.89 | 26,201 | 325,936.90 |
| Groundnuts | 454 | 2,779.50 | 194 | 1,358.19 | 2,080 | 16,419.26 | 201 | 2,028.55 |
| TOTALS | - | 49,296.50 | - | 48,736.56 | - | 176,740.15 | - | 327,965.45 |

Source: Silveira House Annual Reports.

## 4. ACHIEVEMENTS AND CONCLUSIONS

It has been mentioned that the main aim of the Catholic Association Agricultural Co-operative Scheme is, in a nutshell, 'to help the African farmer to move from subsistence to a cash economy'. The organisation has offered many facilities and services to its members in order to achieve this aim. To see if the aim is being attained, four criteria are used for the assessment of the organisation's achievements so far:

- the rate of the peasants' acceptance of the project;

- the diffusion of agricultural innovations among the members;

- the changes in levels of land productivity; and

- the rate of loan recovery, and the subsequent capital formation.

### 4.01 Acceptance of the Project

It has been noted that the failure and/or limited success of most of the pre-independence government development efforts have been partly due to peasants' rejection of most of those efforts. The Silveira House Project planners and the Catholic Association Leadership have always been aware of this factor, and hence have paid much attention to it. They have never solicited, advertised, nor imposed the project on the people. Instead, they waited for the farmers to invite them for advice and to apply for assistance.

Through their awareness and motivation courses and extension services, Silveira House demonstrated that the application of modern farming methods can increase yields and remunerative financial returns. These experiences spread like veld fire and attracted applications to form new groups and/or join the existing ones from a wide range of the peasantry. Demands to

attend awareness and motivation courses exceeded the Centre's training capacity. The actual course attendance statistics increased by more than 41 per cent between 1974 and 1981, while attendance at field training courses more than quadrupled within the same period.

Perhaps the most convincing statistical evidence to show the peasants' acceptance of the Catholic Association agricultural co-operative scheme is reflected by actual project membership growth. Figure 8.1 above shows that after a slow start within the first five to six years, there was a sudden upsurge of membership in 1976 which increased, as already pointed out, by over 3,500 per cent per annum. Membership expansion analysis within selected villages in Mangwende and Mhondoro regions shows that where the initial membership in a village begins with only 10 per cent of the households, 96 per cent of households eventually accept membership over a period of five to six years. From the traditional operational regions of Goromonzi, Mangwende, Mhondoro and Wedza, the scheme has now spread into Chiweshe, Chihota, Madziwa, Musana, Sanyati, Seke and Zvimba. The revival of Mudzi and Mutoko, after a dormant period during the peak of the liberation war, is now underway and expected to be completed by 1983. These statistics seem to prove beyond doubt the acceptability of the Silveira House agricultural project to the peasant farmers.

## 4.02 The Diffusion of Agricultural Innovations

The spreading of scientific agricultural innovations has been, as discussed in chapter one, one of the most problematic tasks of development experts among peasant communities. The Silveira House staff knew that the diffusion of these innovations depends on peasants' will and capacity to adopt them. All their awareness and field training courses are, therefore, designed, as indicated earlier, to generate among the peasants a positive attitude toward adopting these innovations.

To evaluate the diffusion of agricultural innovations among the C.A. farmers, it is necessary to examine their methods and level of soil conservation and maintenance of soil fertility, their use of modern implements and the scientific inputs, and their level of cash production. There is ample evidence that the members of the Catholic Association agricultural co-operatives have accepted and adopted many innovations, including those - such as contour ridging, crop rotation, livestock breeding for cash purposes, and cash cropping - which they had so vehemently resisted during the days of the Land Husbandry Act (1951-1962). The construction and maintenance of contour ridges and crop rotation have been adopted as some of the seven points used in judging good farming practices (Appendix XIVa). The farmers have not adopted these practices blindly; all those interviewed have a very clear understanding of the importance of these practices. For example, for crop rotation, the following are some of the reasons which were common to all the farmers:

- to maintain soil fertility by growing crops, like the legumes, which have the capacity to fix nitrogen in the soil;

- to check the building up of pests and certain crop diseases;

- to reduce weed infestation by growing some crops that destroy certain weeds (bise); and

- to minimize the risk of soil erosion by planting crops that have different rooting habits.

More proof for the adoption of modern farming innovations by the C.A. farmers is also reflected by a high demand for modern farm implements and tools, and for the modern agricultural inputs. The number of scotch-carts,

cultivators, weighing scales, shellers and sprayers which were bought by C.A. groups as well as individual members is phenomenal. For instance, the cultivators acquired by the members of one group in Goromanzi increased by nearly 80 per cent between 1970 and 1980. The demand for inputs, and particularly the use of fertilizer, has been rising sharply since the formation of the two pioneer groups. For example, between 1970 and 1981, the purchases of fertilizer from the Pump Priming Revolving Loan Fund alone rose from a mere 200 bags to a staggering figure of 16,727 bags Table 8.11 also demonstrates the changes which occurred in the use of fertilizer, maize seeds and pesticides between 1976 and 1981.

There is also abundant evidence to show that the members of the Catholic Association Agricultural Co-operatives are increasingly becoming cash-orientated. For instance, 54 per cent of the C.A. farmers interviewed fatten cattle for sale, while all of them raise some of the small livestock - poultry, pigs, sheep, or rabbits - for cash. The crop marketing data, shown on Table 8.12, are clear and loud evidence demonstrating that the C.A. farmers appear to be well and truly on the road to commercial production. It seems fair to suggest that these achievements have only been possible as a result of an effective diffusion process of agricultural innovations among the members of the Catholic Association Agricultural Co-operatives.

### 4.03 Increased Crop Productivity

Increased crop yields per given unit of land is possibly the best index in measuring the success of adopting improved innovations. From data obtained during this research on yields of selected crops - maize, groundnuts, rapoko, sorghum etc. - it is clear that there has been a remarkable change in crop productivity per hectare among the C.A. producers. Table 8.13 gives an average maize yield per hectare in the five oldest areas of the Scheme for a selected number of years, 1975 to 1981.

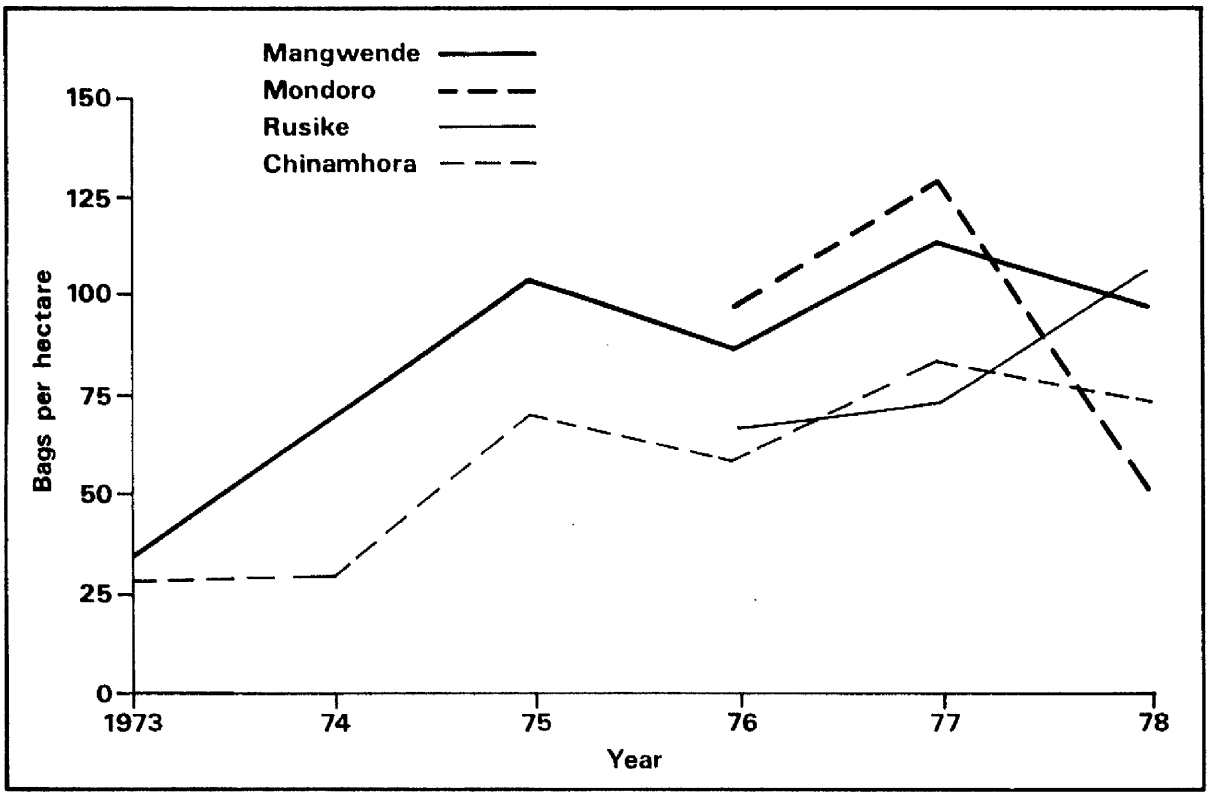
Table 8.13 Average Maize Yields Per Hectare (in 93kg. Bags)

| SELECTED AREA | 1975/76 | 1976/77 | 1977/78 | 1978/79 | 1979/80 | 1980/81 |
|---|---|---|---|---|---|---|
| Chikwaka | 74.0 | 86.0 | 79.0 | 44.5 | N/R* | 67.0 |
| Chinamhora | 59.0 | 81.5 | 74.0 | 52.0 | 49.0 | 69.0 |
| Mangwende | 86.0 | 111.0 | 101.0 | 52.0 | 52.0 | 86.0 |
| Mhondoro | 94.0 | 126.0 | 49.0 | 54.0 | 49.0 | 49.0 |
| Rusike | 64.0 | 74.0 | 104.0 | 44.5 | N/R* | 67.0 |

Source: Converted from acreage records in Silveira House Annual Reports, 1975-1981.

*N/R = No Records because of the war.

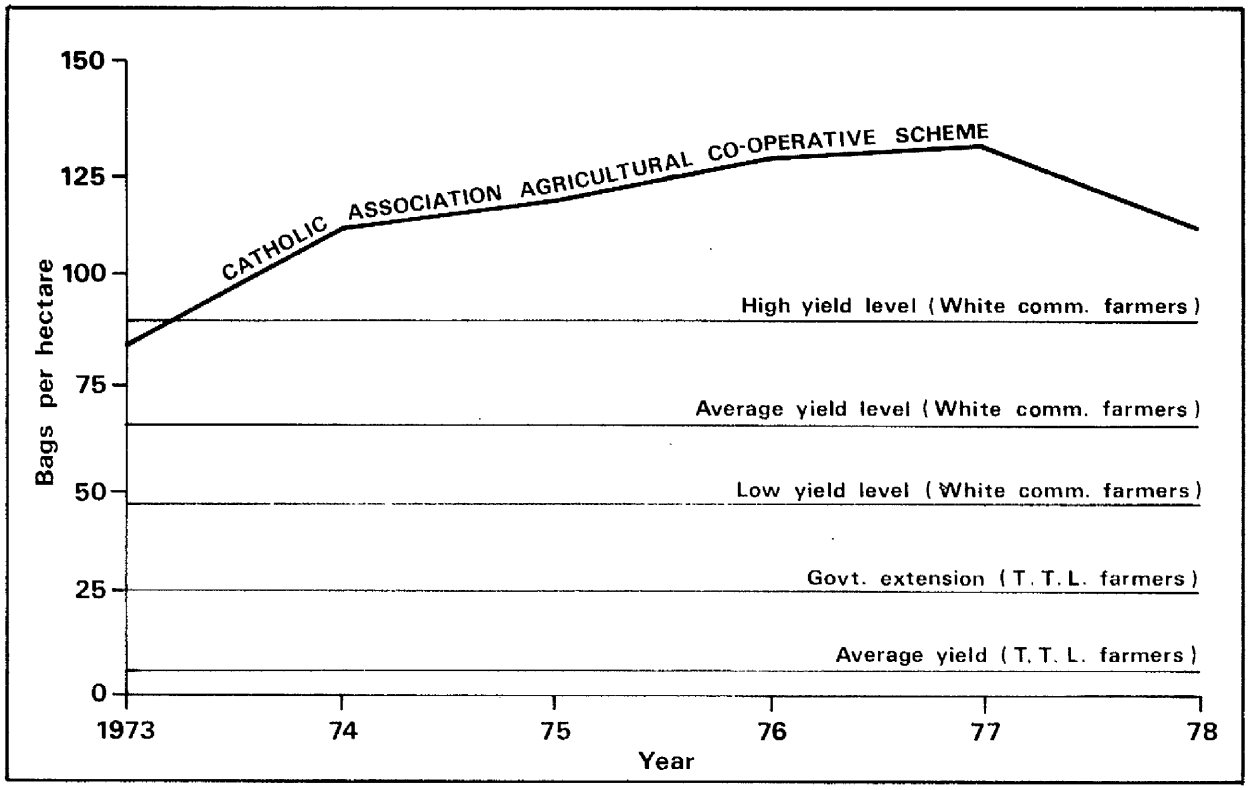
CATHOLIC ASSOCIATION AGRICULTURAL SCHEME
REGIONAL MEAN YIELD




*Source: Adapted from Chitsike, L.T., 1980, Appendix 6d.*

Fig. 8.5

COMPARATIVE ABSOLUTE MAXIMUM YIELD BETWEEN THE CATHOLIC ASSOCIATION AGRICULTURAL CO-OPERATIVE SCHEME, COMMERCIAL FARMERS AND COMMUNAL LANDS FARMERS.




*Source: Adapted from Chitsike, L.T., 1980, Appendix 6d.*

Fig. 8.6

According to this information, maize productivity has maintained a sustained rate of growth for six years. With the exception of Chikwaka and Rusike, with yields of 44.5 bags per hectare in 1978/79 during the peak of the war, all the areas have maintained an average yield of between 49 and 111 bags per hectare (Figure 8.5). This is an impressive achievement, especially if one realises that the mean Communal Land yield per hectare, as shown in Figure 8.6, is between seven and 25 bags, and that the large-scale commercial farmers' mean low yield per hectare is 44.5 bags, and mean high yield is 89 bags[9]. All the farmers interviewed reported that their maize yields per hectare, as will be shown on Tables 9.2 and 9.5, before they became members of the Catholic Association Agricultural Co-operatives, had always ranged between four and 25 bags. These figures indicate that the C.A. farmers have been able to raise their crop land productivity by as much as five times, yielding a level which compares very favourably with that of large-scale commercial farmers. Moreover, the Silveira House Scheme best farmer's yield is well above the large-scale commercial farmers' 89 bag mark nearly every year. For example, the 1980/81 best farmer, from Mhondoro Central, reaped 138 bags per hectare. Such high levels of maize productivity have been the envy of even the neighbouring small-scale commercial farmers. It is revealed, in one of Silveira House's Annual Reports, that one of their members, in Rusike:

> "... had higher yield (46 bags per acre) than his neighbouring African Purchase Area Farms of Shangure. The Purchase Area farmers attending the field day commented, with wonderment, on this high production especially from a tribal farmer. The APA farmers complained that Silveira House would not operate in their Purchase Area." (5)

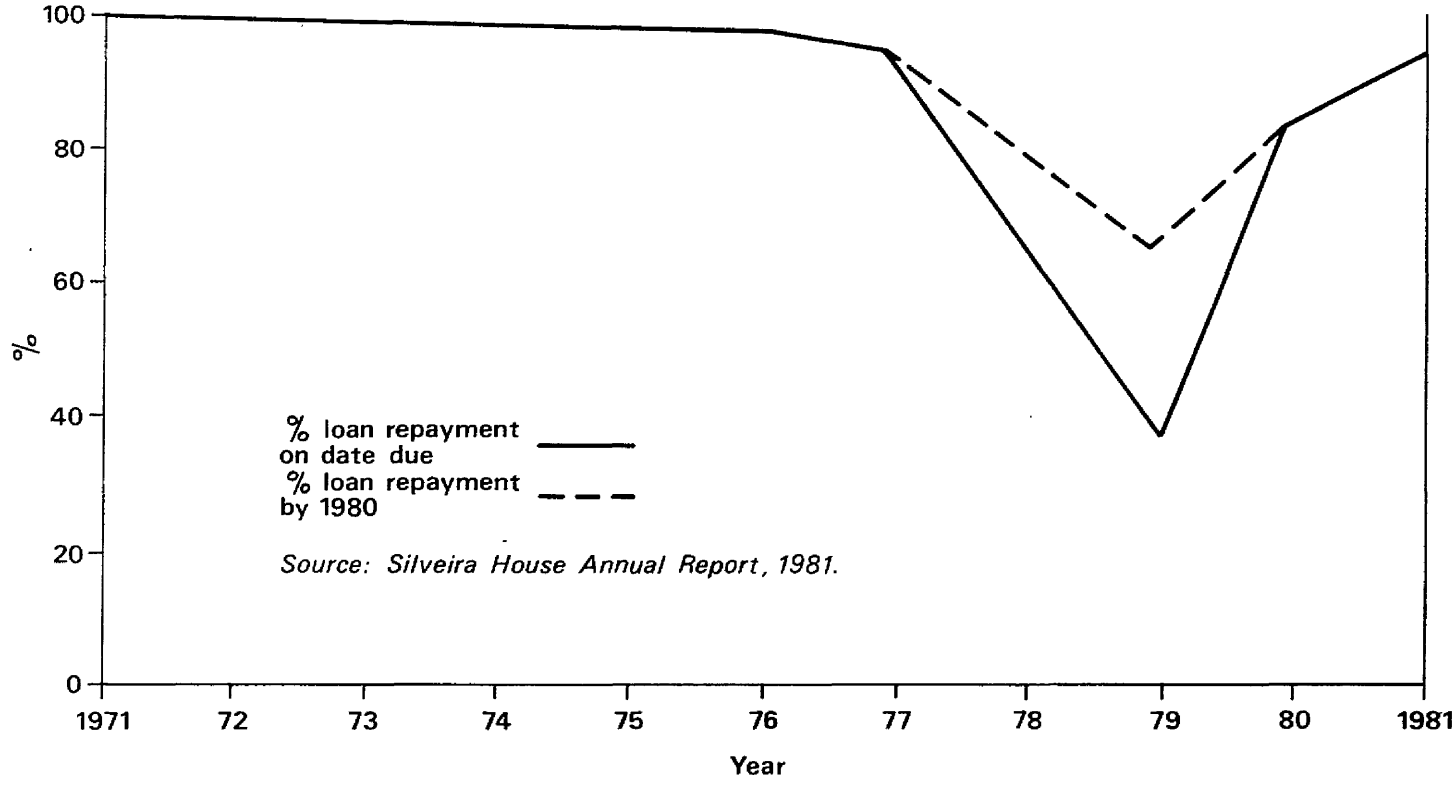
These high productivity levels are attributed to a number of factors. However, both the government agricultural extension assistants and the C.A. farmers interviewed were unanimous in reporting that these impressive yields were largely due to three factors. First, the Catholic Association Agricultural Co-operative Scheme has succeeded, through its awareness and

motivation courses and its field days, to make its members adopt the modern agricultural innovations, which are considered so vital in raising peasants from traditional producers to commercial farmers. These innovations are constantly reinforced by the latest farming techniques through an efficient system of extension services and follow-ups instituted by Silveira House. Secondly, the Scheme has successfully provided its members with the necessary initial capital for the acquisition of the inputs which, as will be shown in much greater detail in chapter nine, are so important in any transformation that has occurred in peasant farming. Finally, the Catholic Association Co-operatives have - through their collective bulk ordering of inputs -made it possible for the C.A. farmers to get most of their input requirements in correct brands, in sufficient quantities and in good time. The farmers are also encouraged to produce a surplus because the Scheme has been offering reliable and efficient marketing facilities.

### 4.04 Loan Recovery

One critical index of the success or failure of a loan scheme is the beneficiaries' rate of repayment. When the loan recovery rate falls to as low as 32 per cent as happened with the loans of the members of the government-sponsored co-operatives from the Agricultural Loan Fund (Table 6.7) during the second half of the 1970s, there is no chance whatsoever for such a scheme to survive. To avoid such a disaster, the Silveira House Agricultural Project introduced three conditions for advancing their loan to any group, and they also instituted an efficient system of close supervision of the peasants' utilisation of the funds and the recovery procedures. First, all the farmers, under the Pump Priming Revolving Loan Fund loan, must market through the Silveira House Grain Marketing Board Registration Number, so that sales are paid direct to Silveira House, thus enabling the Centre to deduct what the farmers owe the Fund.

PUMP PRIMING REVOLVING LOAN FUND LOAN RECOVERY: 1971-81.




*Source: Silveira House Annual Report, 1981.*

Fig. 8.7

Secondly, the farmers are encouraged to contribute between 25 and 50 per cent of the working capital for the 0.4 hectare inputs, so that they are truly involved financially. Thirdly, the responsibility for loan repayment is placed on the shoulders of group committees with the sanction that if any group members default, then no member of that group will receive further loans the following season, except when the failure is due to circumstances beyond the farmer's control, such as droughts or washouts.

As a result of these measures, the C.A. farmers have kept an excellent reputation for repayment of loans advanced to them. Figure 8.7 shows that between 1971 and 1976, that is, before the liberation war had seriously affected farming activities in the C.A. operational area, loan repayments were 100 per cent. But when the Mudzi/Mutoko areas were affected in 1977, the repayment rate dropped to 96 per cent, which was still very good by any standards. In 1978, three major areas - Mangwende, Chikwaka and Rusike - were affected and this reduced the rate to an unsatisfactory level of 67 per cent. The combined effects of the intensified war and a severe drought in 1979 reduced the C.A. farmers' repayment rate to an all-time low percentage of 43.

However, with the restoration of normality in early 1980, about 42 per cent of the loan due for repayment in 1977, 1978 and 1979 was repaid by the end of 1980 (shown by the broken line in Figure 8.7). Considering that these recoveries were made in addition to the normal repayments for 1980, the evidence seems convincing as an indication that the C.A. farmers have developed a strong sense of responsibility for loan repayments.

Although it may be too early to comment on the C.A. farmers' rate of repayment rate of the Agricultural Finance Corporation loans, Table 8.14 shows an encouraging beginning. By the end of October 1981, when the Grain Marketing Board payments for that year's sales were still flowing

Table 8.14 Agricultural Finance Corporation Loan Repayment 1980/81 Funding (N = 2,603)

| REGION OR AREA | TOTAL AMOUNT (Z$) | AMOUNT REPAID (Z$) | OUTSTANDING BALANCES | |
|---|---|---|---|---|
| | | | AMOUNT (Z$) | PERCENTAGE |
| Chikwake | 10,683 | 10,683 | - | 0 |
| Chinamhora | 81,600 | 63,389 | 18,211 | 22.3 |
| Mangwende | 350,460 | 345,258 | 5,202 | 1.5 |
| Mhondoro | 127,162 | 100,239 | 26,923 | 21.2 |
| Musana | 28,152 | 23,162 | 4,990 | 17.7 |
| Ngezi | 70,645 | 56,741 | 13,904 | 19.7 |
| Rusike | 47,249 | 47,249 | - | 0 |
| Wedza | 26,342 | 25,785 | 557 | 2.1 |
| Zvimba | 19,547 | 18,572 | 975 | 5 |
| TOTALS | Z$761,840 | Z$691,078 | Z$70,762 | 9.3 |

Source: Silveira House Annual Report, 1981.

in, over 90 per cent of the loan had already been repaid. Two areas, Chikwaka and Rusike had repaid everything, and Mangwende and Wedza had each less than 3 per cent of the loan still outstanding. Both the Agricultural Finance Corporation and the Silveira House staff were greatly impressed by such an exceptionally high record for loan repayment.

## 4.05 Capital Formation

When the Pump Priming Revolving Loan Fund was initiated, it was not intended to finance the C.A. farmers indefinitely; but that it should last for three to four years only. This plan was in line with the Silveira House Project that the C.A. agricultural co-operative members should be trained to become eventually self-reliant. Therefore, after three to four years of financial support from the Fund, a group of C.A. farmers was expected to have collectively pooled its members' savings together into a Savings Club which would make it possible for the group to be 'weaned', as it were. The farmers were then expected to purchase their own inputs and cover their agro-business costs from their own accumulated capital.

By 1978, nineteen groups were weaned and had formed Savings Clubs. But, unfortunately, due to the disruptions of the intensified liberation war, after 1975; to the vagaries of unfavourable weather, particularly in 1978 and 1979; and to the lack of public institutional back-up arrangement in the event of such natural disasters, the 0.4 hectare plot could not generate sufficient capital capable of maintaining the original 0.4 hectare plot as well as further expansion. The members' meagre savings, estimated to be between Z$ 80 and Z$ 200, from the 0.4 hectare plot was dissipated through an array of domestic expenses. Consequently, it became clear that some old members from the weaned groups desperately needed further loan assistance. Thus the need for permanent and reliable lending facilities became increasingly imperative.

Such a role has been assumed by the Agricultural Finance Corporation, which in 1980 commenced offering loans, as already indicated, to weaned groups for input items sufficient for about 2.0 hectares per farmer. This assistance has increased the C.A. farmers' cash cropping capacity five-fold, and is thus enabling him, it is hoped, to accelerate the process of capital formation. It is too early to say, with certainty, what the results are going to be in five to ten years' time. However, forecasts for the future, as will be made clear in chapter nine, seem to be bright and positive.

## 4.06 Concluding Remarks

This chapter has shown that between 1971 and 1981, peasant farmers' membership of the Catholic Association Agricultural Co-operatives has grown at an average rate of 3,332.4 farmers per annum (Table 8.1). The resultant formation of agricultural co-operative groups and their subsequent spatial distribution have been phenomenal (Tables 8.2 and 3), effectively covering an area of over 24.5 square kilometres within a short period of a decade. It has also been demonstrated that peasant participation in co-operative activities - labour supply, the use of collective resources (capital assets, equipment and tools), co-operative ordering of input items, collective marketing of surplus produce, and attendance at courses and field days - has been very impressive. Such dramatic increases in co-operative membership and group formation, and peasant participation in the Scheme's affairs seem to provide sufficient evidence that Zimbabwean peasants are both willing and capable of realising and accepting the need to modernize their farming methods.

The C.A. farmers' adoption of modern farming innovations - as shown by an insatiable demand for and use of scientific agricultural inputs, increased productivity and peasant ability to repay the loan - appears also to support the suggestion that the Zimbabwean peasant farmers have

both the will and the capacity to innovate. Such evidence makes it difficult to sustain the assertion that Zimbabwean peasant farmers are conservative and resistant to change.

This chapter has also tried to show that the Catholic Association Agricultural Co-operative Scheme has successfully justified itself to both the political and traditional authorities and to the farming peasantry. The Scheme has also managed, with distinction, to provide its members with very useful basic farming skills, and with a fairly viable loan scheme and reliable additional sources of credit - for example, the Agricultural Finance Corporation. The Co-operatives have also provided an efficient channel for the supply of the necessary inputs, and the marketing of the members' surplus produce.

## Chapter 8 - FOOTNOTES AND REFERENCES

8.1 Refer footnote 18 in chapter five.

8.2 Some of the public strategies - agricultural extension services and the African Development Fund and Land Husbandry Act - have already been discussed in chapter five. Among the privately initiated and sponsored schemes were the African Loan and Development Company Ltd. and the African Farming Development Company.

8.3 This information was supplied by Dr. L. T. Chitsike, then Director of the Project, 1980.

8.4 The Pump Priming Revolving Loan Fund, abbreviated to PPRLF, is a standing fund donated to Silveira House, a Catholic Leadership Development Centre, for loaning to the members of the C.A. agricultural groups in a bid to increase peasant farming productivity.

8.5 Misereor is a Catholic organisation funded by West German Bishops' Conference, to pool together a development aid fund which is then donated to needy developing countries to run development projects, especially those organised and supervised by the Church.

8.6 The nursery scheme groups are those groups which are still in the three-year experimental stage and are receiving financial aid from the PPRLF while the weaned ones are those groups that have been promoted to the A.F.C. loan scheme.

8.7 One, two, or three of the following factors have been used to designate the C.A. Agricultural Co-operative Regions: geographical proximity, civil district divisions, and the area run by one Regional Co-ordinator.

8.8 The seven sources are the Agricultural Finance Corporation, Misereor, Oxfam, Christian Care, Commission on Social Service and Development, Zimbabwe Trust and the Members' Savings Clubs.

8.9 These statistics have been published in a publication by Peter Thomas and Associates, Conex and Rhodesia National Farmers' Union, 1978.

## SOURCES OF QUOTATIONS AND REFERENCES

8.1 Silveira House, Annual Report, 1980, p. 80.

8.2 Chinyoka, T., - 5 May 1981: An 'Unstructured Interview', Silveira House (Chishawasha).

8.3 Dr. L. T. Chitsike is quoted in 'The Herald', 26 May 1982, p. 4.

8.4 This is quoted from Mrs. Julia Mangwende of Mhondoro in 'The Herald', 26 May 1982, p. 4.

8.5 Silveira House Annual Report 1978, pp. 90-91.

PART IV

## RESEARCH FINDINGS, OBSERVATIONS AND CONCLUSIONS

Part IV has only one chapter - nine - which deals with the diffusion among and the adoption of modern agricultural innovations by Zimbabwe's peasant farmers. It carefully assesses the contribution of agricultural co-operation to the diffusion process of these innovations. Part IV also examines the peasants' will and capacity to innovate and change. It then tries objectively to appraise the possibilities of national replication of the two non-government-sponsored co-operative models, and concludes by appealing to development policy makers to appreciate and respect the rationality of peasant economic aspirations and their agricultural development potential.

# CHAPTER 9

# THE DIFFUSION OF MODERN FARMING INNOVATIONS, THE ROLE OF AGRICULTURAL CO-OPERATION AND CONCLUSIONS

## 1. INTRODUCTION

The main aim of the peasant agricultural development strategies discussed in this thesis is to transform peasant agriculture through the diffusion of modern agricultural innovations among the peasant farmers. Clearly not all these strategies have succeeded equally in their efforts to diffuse the necessary agricultural innovations. This chapter concentrates attention on one such strategy - non-government co-operatives - which, according to the evidence provided in chapters seven and eight, appears to have been relatively successful. A small sample of twenty co-operators and twenty nonco-operators, selected at random from the main sample, is used to show that there is a significant difference in the levels of agricultural innovation and farming performance between the two groups.

By using a set of selected criteria, the chapter attempts to support the opinion that peasant co-operators have adopted agricultural innovations more eagerly and successfully than have peasant nonco-operators. It is, therefore, suggested that agricultural co-operation has been largely accountable for this difference. The chapter will also reveal those innovations which have been successfully adopted. It will investigate a number of factors that may have been responsible for the difference in the diffusion of modern farming innovations between co-operators and nonco-operators, and will analyse the agricultural technological changes and improvements which have occurred in co-operative production consequent upon the impact of these innovations.

## 2. MODERN AGRICULTURAL INNOVATIONS ADOPTED

Agricultural transformation, according to the avowedly capitalist definition of development used in this thesis, refers to those changes that result from the application of scientific agricultural production techniques and patterns which lead to noticeable and sustained increases in productivity per given unit factor of production. The criteria selected for the assessment of agricultural transformation are, therefore, those which can be measured in terms of easily perceptible production techniques and patterns and of concrete indices of increased productivity (Table 9.1).

### 2.01 Criteria for Assessment

As already discussed in chapter two, ten variables have been selected for the purpose of testing peasant adoption of modern farming innovations. Because of the reasons given in the earlier chapter, a small sample of forty farmers - that is, nearly 19 per cent of the total sample - has been used for the detailed comparative analysis of peasant adoption of agricultural innovations. Table 9.1 gives the ten variables and the results they reflect on the farming performance of the two groups.

The statistics in columns three and four attempt to show the differences between the farming performance of co-operators before they became members of agricultural co-operatives and their current performance. The figures in columns four and five compare the present performances of co-operators and nonco-operators. The Table shows that more peasant farmers in agricultural co-operatives grow cash crops and rear livestock for cash purposes than do those who are not in co-operatives. It is also demonstrated that co-operators invest more money in farming than do nonco-operators. Co-operators also use more agricultural inputs - livestock manure, compost, fertilizer, insecticides and herbicides - and more improved maize and groundnut seeds. It is also evident that co-operators are increasingly

becoming keener to make compost manure and to practise crop rotation, soil conservation, winter ploughing and multiple cropping than before they became members of their present agricultural co-operatives. These findings also show that more co-operators are engaged in these activities than nonco-operators (column five).

There is also ample evidence from these data to show that there have been recognisable changes in co-operative farmers' land cropping patterns. For instance, Figure 4.1 in chapter four demonstrates most clearly that co-operative farmers are increasingly devoting more land to purely cash crops (17%) than do nonco-operators (5%). Planting crops in rows among co-operative farmers is steadily replacing the traditional method of broadcasting, which is widely considered wasteful, uneconomic and obstructive to the use of cultivators during weeding. A reasonably good number of co-operators, particularly in Masvingo Province, are increasingly adopting improved livestock breeds primarily for cash purposes.

It has already been shown in chapter four that typical Zimbabwean peasant farming is essentially small-scale and largely subsistence in character, uses very little modern agricultural inputs and is clearly non-capital intensive. It has also been noted that such practices as crop rotation, winter ploughing and multiple cropping are largely non-existent. Typical peasant agriculture has also been widely known for its lack of concern for soil conservation and the artificial maintenance of its fertility. The farming performance of co-operators before they joined agricultural co-operatives (Table 9.1, column 3) and of nonco-operators (Table 9.1, column 5) seem to confirm these assertions. But the current farming performance of co-operators (Table 9.1, column 4) demonstrates a considerable degree of peasant adoption of agricultural innovations. The figures in column 4 of Table 9.1 also show that the majority of co-operators are no longer contented with subsistence farming; they are increasingly involved in cash cropping - cotton, sunflowers, and tobacco production -

Table 9.1 Variables for the Assessment of Peasant Adoption of Agricultural Innovations (N = 40)

| INNOVATION | VARIABLES | NO. OF CO-OPERATIVE FARMERS | | NO. OF NONCO-OPERATORS IN 1980/81 |
|---|---|---|---|---|
| | | BEFORE JOINING CO-OP. | IN 1980/81 | |
| Cash Cropping | Cotton | 3 | 11 | 2 |
| | Sunflowers | 0 | 8 | 0 |
| | Tobacco | 1 | 12 | 1 |
| Livestock Production for Cash Purposes | Fattened Cattle | 0 | 13 | 2 |
| | Pig Production | 1 | 9 | 0 |
| | Poultry | 6 | 17 | 8 |
| Capital investment | Inputs | 8 | 170 | 14 |
| | Implements | 4 | 85 | 10 |
| Use of Modern Agricultural Inputs | Manure | 15 | 20 | 14 |
| | Compost | 4 | 14 | 5 |
| | Fertilizers | 2 | 20 | 4 |
| | Pesticides | 2 | 16 | 3 |
| | Herbicides | 0 | 7 | 0 |
| Use of Hybrid Seeds | Maize | 10 | 20 | 9 |
| | Groundnuts | 2 | 15 | 2 |
| Making compost manure | | 3 | 14 | 4 |
| Practice of crop rotation | | 6 | 20 | 6 |
| Practice of soil conservation | | 7 | 20 | 14 |
| Practice of winter ploughing | | 10 | 18 | 7 |
| Practice of multiple cropping | | 0 | 10 | 2 |

Source: Research Data, 1980/81.

and commercial livestock production - cattle fattening, pig production and poultry. The level of capital investment in farming and the use of modern agricultural inputs and improved crop seeds among peasant co-operators are high. Table 9.1 also shows that all the co-operators selected for the detailed sample analysis practise crop rotation and soil conservation, 90 per cent practise winter ploughing and 50 per cent practise multiple cropping.

In view of these indications, it seems fair to assume that the Zimbabwean peasant co-operators have both the will and the capacity to adopt to modern agricultural innovations.

### 2.02 Effects on Peasant Farming Performance

The adoption of modern farming innovations by peasant co-operators has had, as intended, a remarkable impact on their agricultural performance. The following four indicators have been used to assess the impact of the newly-adopted farming methods and production techniques on peasant agriculture: crop productivity, livestock quality, proportion of marketed crop and the farmer's annual income from farm produce.

Table 9.2 shows that peasant co-operators' maize productivity increased from only eleven bags per hectare before they joined co-operatives to an impressive figure of 72 bags per hectare after they had become members of agricultural co-operatives, while groundnut productivity per hectare increased by 150 per cent from twenty to thirty bags. These productivity rates are respectively five times and three times more than the rates for nonco-operators, whose productivity rates per hectare are fifteen bags and nine bags respectively (Table 9.2, column 5).

It has also been possible to show, as already noted in chapter seven, that members of peasant agricultural co-operatives have been able to raise the quality and hence the value of their livestock since joining the co-operative clubs and/or groups. For example, Table 9.2 shows that the

value of co-operators' cattle and pigs increased from an average of Z$ 47 to Z$ 100 per head and of Z$ 31 to Z$75 respectively. This gives respective percentage value increases of 240 and 142. The mean value per beast of co-operators' livestock contrasts markedly with that of the nonco-operators' livestock, which is Z$ 60 for cattle and Z$ 34 for pigs.

Table 9.2 also demonstrates that the proportion of co-operators' marketed maize has risen from 9 per cent to 79 per cent per annum, and groundnuts from 10 per cent to 72 per cent per annum since becoming members of agricultural co-operatives. The proportions (9 per cent and 10 per cent) marketed by co-operators before they became members of agricultural co-operatives compare favourably with those proportions (11 per cent and 14 per cent) which were marketed by nonco-operators in 1980/81 (Table 9.2, column 5). These results seem to suggest that nonco-operators market a very small proportion of their produce, and that peasant co-operators market well over three-quarters of their maize and nearly three-quarters of their groundnuts. This, according to Ruthernberg's (1971) classification would classify peasant co-operators as being highly commercialised. What it seems to demonstrate, however, is that: first, given appropriate agricultural innovations, the Zimbabwean peasant farmers are both willing and capable of producing for commercial purposes; and secondly, agricultural co-operation appears to be an appropriate vehicle for the diffusion of such appropriate innovations.

The fourth indicator attempts to show that the application of adopted agricultural innovations by peasant co-operators has enabled them to raise their annual gross income from farm produce. Table 9.2 illustrates that the average annual gross income per farmer before they became co-operators was only Z$ 86, and that of the twenty nonco-operators chosen for the in-depth analysis sample was, during the time of this research, Z$ 130. But the co-operators' average annual gross income per farmer, in 1980/81, was Z$ 831. Such an income from agricultural sales seems to be a convincing

Table 9.2 Impact of Innovations on Farming Production (N = 40)

| INDICATOR | MEASURING INDEX OR UNIT USED | CO-OPERATIVE FARMERS | | NONCO-OPERATIVE FARMERS IN 1980/81 |
|---|---|---|---|---|
| | | BEFORE JOINING CO-OPERATIVES | AFTER JOINING CO-OPERATIVES | |
| Crop Productivity (per ha.) | Maize (in Bags) | 11 | 72 | 15 |
| | Groundnuts (in Bags) | 12 | 30 | 9 |
| Livestock Quality | Cattle (in Z$) | 47 | 160 | 60 |
| | Pigs (in Z$) | 31 | 75 | 34 |
| Crop Proportions Marketed | Maize | 9% | 79% | 11% |
| | Groundnuts | 10% | 72% | 14% |
| Income from farm sales | Value (in Z$) | 86 | 831 | 130 |

Source: Research Data, 1980/81.

344 + 345.

indication that Zimbabwean peasant farming is capable of commercially intensified production.

It seems relevant at this point to note that this section has, so far, most clearly revealed two things. First, it is undoubtedly clear that co-operators have adopted and are applying more modern agricultural innovations than nonco-operators. Secondly, it has been shown beyond any reasonable doubt, that the agricultural performance of co-operative farmers has, at least according to the selected criteria, yielded more satisfactory results than that of nonco-operators. But what has not yet been established are the reasons for the differences in the degree of agricultural innovation between the co-operators and nonco-operators, and in the performance of their farming techniques. Subsection 2.03 and section 3 below will, therefore, concentrate on the investigation of the possible reasons for these differences.

### 2.03 Possible Reasons for the Differences

The adoption of agricultural innovations and their consequent effects on peasant co-operators' farming techniques, patterns and productivity can be affected by many factors. The following ten have been subjectively considered as the most important in Zimbabwean peasant farming: the farmer's age, sex, education and religion; the size of the farmer's land and the type of its soil; the farmer's possession of basic farm implements and efficient draught power; the availability of,and access to, adequate labour force/supply; and the farmer's distance from urban markets (Table 9.3). These factors have been chosen not to investigate whether or how they have influenced peasant agricultural production. Such an inquiry is beyond the competence of this section. They are used simply to see if these factors are in any way responsible for the differences which exist between the co-operators' and the nonco-operators' levels of adopted farming innovations and agricultural productivity.

Table 9.3 Possible Reasons for the Differences (N = 40)

| FACTOR | CRITERIA/ INDICES | TOTAL RESEARCH SAMPLE | CO-OPERATORS (20) | NONCO-OPERATORS (20) |
|---|---|---|---|---|
| FARMER'S AGE | Under 20 years | 9 | 1 | 1 |
| | 21-30 " | 11 | 2 | 3 |
| | 31-40 " | 49 | 5 | 4 |
| | 41-50 " | 72 | 8 | 5 |
| | over 50 " | 71 | 4 | 7 |
| FARMER'S SEX | Female | 38 | 4 | 8 |
| | Male | 174 | 16 | 12 |
| FARMER'S EDUCATION | Illiterate | 42 | 4 | 3 |
| | Lower Primary | 106 | 7 | 12 |
| | Upper Primary | 50 | 5 | 3 |
| | Secondary | 14 | 4 | 2 |
| FARMER'S RELIGION | Catholic | 121 | 12 | 9 |
| | Protestant | 69 | 6 | 7 |
| | Traditional | 22 | 2 | 4 |
| SIZE OF LAND | Less than 1.2 ha. | 18 | 2 | 1 |
| | 1.2-2.4 " | 143 | 13 | 15 |
| | 2.8-4.0 " | 31 | 3 | 3 |
| | over 4.0 " | 20 | 2 | 1 |
| TYPE OF SOIL | Clayey | 28 | 3 | 2 |
| | Loamy | 21 | 2 | 4 |
| | Rocky | 17 | 2 | 0 |
| | Sandy | 136 | 12 | 12 |
| | Vlei | 10 | 1 | 2 |
| FARM IMPLEMENTS | None | 3 | 0 | 0 |
| | Minimum | 153 | 9 | 13 |
| | Adequate | 89 | 11 | 7 |
| DRAUGHT POWER | Nil | 41 | 3 | 2 |
| | Minimum | 102 | 12 | 14 |
| | Adequate | 69 | 5 | 4 |
| LABOUR SUPPLY | Poor | 30 | 0 | 7 |
| | Fair | 91 | 6 | 8 |
| | Satisfactory | 91 | 14 | 5 |
| DISTANCE TO URBAN MARKET | Less than 10 km. | 3 | 0 | 1 |
| | 11-25 " | 20 | 4 | 1 |
| | 26-50 " | 42 | 6 | 11 |
| | over 50 " | 147 | 10 | 7 |

Source: Research Data, 1980/81.

This research, therefore, undertakes a comparative analysis of the numerical frequency distribution of the twenty co-operative farmers and the twenty nonco-operators within selected sets of criteria among the ten factors to see if there are any significant differences. Table 9.3 shows the ten factors and the criteria or indices used in this analysis.

(a) The Farmer's Age

Age is important in farming. For example, old age is generally supposed to make a farmer rigid in his or her views and hence render him or her unreceptive to new ideas (Anthony et al., 1979; Arnon, 1981), thus retarding the smooth diffusion of innovations. But it can also be an advantage in that the farmer's experience is very useful in many obvious ways - planting and/or harvesting timing, the application of various inputs, etc. Five age brackets have been chosen, and the forty farmers distributed into the five age groups. It seems obvious that the two groups of farmers are fairly distributed within each age bracket. Age, then, does not seem to have any influence on the differences between the co-operators' level of innovation and that of the nonco-operators.

(b) The Farmer's Sex

The Zimbabwean peasant society is sociologically male dominated. For that reason, men tend to be resistant to changes while women, because of their supposedly generally submissive nature, are more receptive to new ideas than are men (Arnon, 1981; Lu, 1968). The distribution of the forty farmers shows that there are more female farmers among the nonco-operators than there are among the co-operators. The sex factor, as conventionally interpreted, would lead one to expect greater levels of innovation among the nonco-operators. In reality, however, the opposite is true. Sex, therefore, does not seem to be an important factor in explaining the differences in the adoption of farming innovations between the two groups.

(c) The Farmer's Educational Level

The literature on agricultural extension work has shown clearly that literacy among peasant farmers (Adams, 1982; Capener, 1964; de Wilde, 1967; Grigg, 1970; Levi and Havinden, 1982) is essential for promoting the diffusion of modern agricultural innovations. The forty farmers were divided into four levels of education - illiterate, lower primary, upper primary and secondary. However, the frequency distribution of the two groups of the forty farmers into these four levels is so equitable that it becomes difficult to attribute the differences between the performance of the co-operative farmers and that of the nonco-operators to literacy levels of the farmers.

(d) The Farmer's Religion

Religion, like magical beliefs in certain traditional peasant economies, is generally believed to be a serious obstacle to the diffusion of agricultural innovations (Grigg, 1970; Islam, 1974; Lutfiyya, 1966; Southworth and Johnson, 1967). For instance, the 'Apostles' and the Zionists (Footnote 5.20) do not touch pigs - in much the same way as the Indians act towards their 'holy cows'. It is obvious, therefore, that it is difficult if not impossible to persuade a farming community with more members of such religious faiths to adopt the raising of pigs, a commercially very profitable animal in Zimbabwe.

However, Table 9.3 shows that the distribution of the forty farmers into the three religious categories selected is fairly balanced. Religion does not, therefore, seem to be causing the differences between the levels of farming sophistication of co-operators and nonco-operators.

(e) The Size of the Farmer's Land

Opinion seems to be divided about the relevance of the size of a farmer's land in the diffusion of agricultural innovations. One school of

thought contends that the smaller the farmer's plot, the more urgent it is for him to adopt new production techniques in order to increase his productivity. An alternative school suggests that a farmer with a large piece of land can afford the luxury of experimenting with new ideas and of taking the risks involved. This promotes the adoption of new innovations (Arnon, 1981; Husain, 1979; Morgan, 1978; Schultz, 1964).

In Table 9.3, however, the majority of the farmers, thirteen and fifteen respectively in both groups, own between 1.2 and 2.4 hectares of crop land. The rest are fairly distributed in the other three categories. Size of land, therefore, does not seem to be responsible for the differences in the adoption levels of new innovations by the two groups.

(f) The Type of Soil in the Farmer's Land

The importance of soil on agricultural land use patterns and cropping possibilities has already been noted in chapter three. Its depth and nature, texture and structure have obvious effects on its fertility (Hayami and Ruttan, 1971; Husain, 1979; Symons, 1978; Webster and Wilson, 1966). Its influence on peasant adoption of agricultural innovations and the consequent productivity seems equally obvious. But since the distribution of the forty farmers into the five soil categories is comparably proportionate, the differences between the farming efficiency of the two groups cannot therefore be attributed to types of soil on peasant farmers' land.

(g) The Farmer's Possession of Sufficient Farm Implements and Efficient Draught Power

These two factors - farm implements and draught power - are nearly always complementary to each other in the farming operations they perform. This is why they are considered jointly here. Both these factors are important because they assist the farmer in correct timing: planting, harvesting, and marketing must all be done in time in order to make the best of any new innovations adopted (Arnon, 1981; de Wilde, 1967; Massell

and Johnson, 1968).

For these factors, the farmers are divided into three categories. The distribution of the two groups of farmers into these categories is fairly equitable in each case. Consequently, farm implements and draught power cannot be considered to account for the differences observed.

(h) Availability of Adequate Labour Supply

Poor labour supply, particularly from the able-bodied men, is a widespread problem in the subsistence sector of most developing economies (Hayami and Ruttan, 1971; Husain, 1979; Morgan and Munton, 1971; Newbury, 1980). Zimbabwe has been no exception to this. Table 9.3 shows that nonco-operators are significantly worse off than the co-operators in the supply of labour. Labour supplies, therefore, does seem to be a valid factor partly responsible for the differences observed between levels of innovation of co-operators and nonco-operators.

(i) Distance to Urban Markets

A good deal of literature concerns the influence of distance to urban markets on the adoption of different cropping patterns (Bradford and Kent, 1977; Henshall, 1967; Husain, 1979; Tarrant, 1974). A number of studies, undertaken both in the developed and developing economies and on the continental and local scales, have demonstrated that there is a direct relationship between distance to urban market and land-use patterns (Ahmad, 1952, in India; Chisholm, 1962 in Britain; Prothero, 1957 in Nigeria; Van Valkenburg and Held, 1952 in Europe; Waibel, 1958 in Brazil).

Ten of the co-operators and thirteen of the nonco-operators are within a fifty kilometre radius of a major urban market, while ten co-operators and seven nonco-operators are all beyond fifty kilometres to the nearest urban market. This seems a fair distribution of the two groups of the sample (forty farmers) for the detailed analysis. It seems, therefore, that

distance to urban markets has not been contributory to the differences between the co-operators and nonco-operators' land-use patterns.

This observation is confirmed by the patterns on Figure 9.1 which shows seven areas situated in different agro-ecological regions and located at different distances from Harare, their nearest major urban market. Although there is a difference of 205 kilometres between Chishawasha, the nearest, and Dendera, the farthest, the major crops grown in the two areas - as in all others between them - are the same, namely: maize, groundnuts and garden vegetables predominating. In view of these findings, it appears that in these semi-cash agricultural economies distance to urban markets has no significant bearing on land-use patterns.

As all the figures in Table 9.3 are derived from a narrow statistical base, and interpreted in their crude form, it is, unfortunately, not possible to draw rigorous conclusions from them. However, it seems fair to state cautiously that all but one of the ten factors identified in Table 9.3 cannot be accepted as convincing reasons for the differences in levels of innovations adopted by co-operators and nonco-operators, or in their effects on these peasants' agricultural output levels.

## 3. THE CONTRIBUTION OF AGRICULTURAL CO-OPERATION IN THE DIFFUSION OF FARMING INNOVATIONS

When it became clear that the factors in Table 9.3 were not responsible for the differences between the agricultural performance of co-operators and nonco-operators, the research narrowed its focus of inquiry onto the farmer's membership of agricultural co-operatives, and on the latter's possible role in facilitating the peasant adoption of agricultural innovations and in removing those constraints accountable for the underdevelopment of peasant agriculture.

MASHONALAND EAST - PEASANT CROPPING PATTERNS IN DIFFERENT AGRO-ECOLOGICAL REGIONS AND AT DIFFERENT DISTANCES TO THE URBAN MARKETS OF HARARE (1980/81)

| A R E A | FARMING REGION | DISTANCE TO HARARE |
|---|---|---|
| Chishawasha | IIa | 20km. |
| Chikwaka | IIa | 56km. |
| Musami | IIa | 80km. |
| Mukarate | IIb | 110km. |
| Uzumba | III | 130km. |
| All Soul's | IV | 185km. |
| Dendera | IV | 225km. |

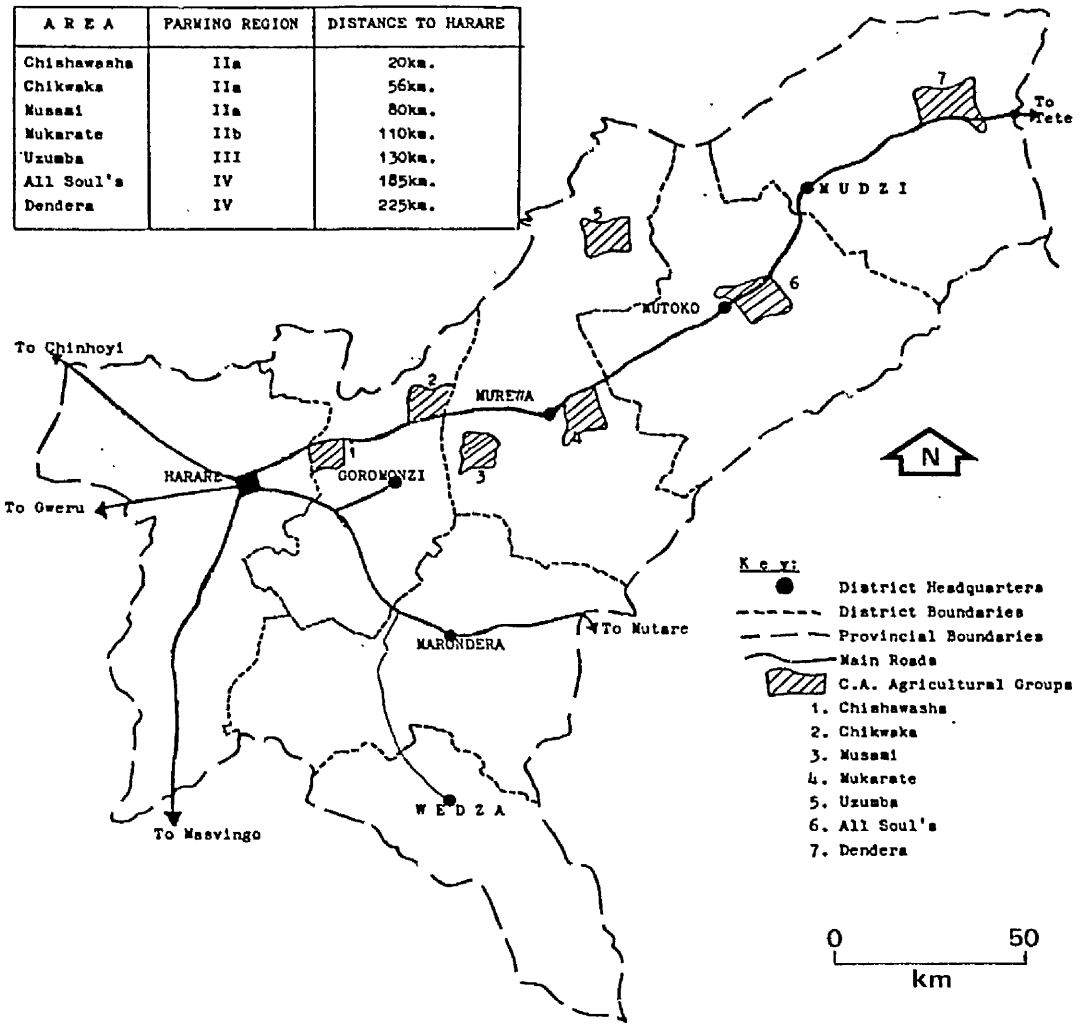



Fig. 9.1

3.01 Co-operative Development Strategy

Analysis of the activities and achievements of both the Association of Master Farmers' Clubs and the Catholic Association Agricultural Co-operatives has shown that the success of these two agricultural co-operative models in promoting the diffusion of farming innovations among peasant farmers has been due largely to the type of the development strategies designed and implemented. The protagonists of both models were fully aware and convinced that the effectiveness of their acceptability by the peasants depended on their ability to motivate and provide basic agricultural skills to the peasants; on their ability to sustain awareness and motivation among the peasants through an efficient follow-up extension system; on their capacity to provide a viable capital resource base and a reliable supply of the necessary agricultural inputs; and on the efficiency of their co-operative facilities and services.

(a) Acceptability to the Peasants

It must be mentioned that all the 160 co-operative farmers interviewed had, at one time or another, been exposed to government agricultural extension services. Yet the majority of them had been uncooperative with pre-independence public development efforts. A large proportion of these co-operators had also been members of the government-sponsored co-operatives. Yet, according to information obtained from these farmers and from all the agricultural extension assistants, no significant adoption of modern agricultural production techniques had taken place. Why, then, have these same farmers been so ready to initiate contacts and co-operation with the same agricultural extension service, and so willing and successful in adopting modern farming methods under private-sponsored agricultural co-operation?

Research evidence has shown that this has been possible because private-sponsored agricultural co-operation has been able to provide peasants with a psycho-sociologically and socio-politically acceptable milieu within which a spirit of social and economic enterprise is generated, encouraged and enhanced. The reasons for peasant distrust of, opposition to, and frustration at, pre-independence development programmes have already been elaborated in chapter five. It has been of paramount importance to restore confidence and generate peasant co-operation and enthusiasm among the farmers in order to improve peasant farming production. Although generalisations about pressure exerted on progressive farmers by peasant communities opposed to change have been considerably exaggerated, it has been vital to engender among the peasants a psycho-sociological environment conducive to the promotion of peasant adoption of modern innovations. Independent agricultural co-operatives, because they were not directly connected with government 'sponsorship', have been very successful in creating such an environment, and therefore in making the schemes acceptable to the peasant farmers.

(b) Provision of Agricultural Awareness, Motivation and Basic Skills

It has been noted that, because of the traditional nature of Zimbabwean peasant agriculture, a good number of the African farmers lack the necessary agricultural awareness and motivation. It has also been stated that one of the obstacles retarding the transformation of peasant agriculture is peasant lack of the basic farming skills. Both the Association of Master Farmers' Clubs and the Catholic Association Agricultural Co-operatives were, from their inception, aware of and concerned with the need to instil into the peasants a sense of the importance of adopting modern farming practices and production techniques. The two organisations design, organise, and run training courses to impart basic

farming skills in the conservation of soil and its fertility, in the ecological and economic importance of modern agricultural innovations, their types, use and application, and in the importance of cash cropping and livestock production (Appendices VIII and XI).

The significance of these skills in the transformation of peasant agriculture has been thoroughly dealt with elsewhere in this thesis, and does not need any further elaboration. It seems clear, therefore, why co-operators are more productive than nonco-operators.

(c) Provision of Agricultural Extension Services

Peasant motivation and the farming awareness generated by the training courses offered through the co-operative auspices need to be sustained. A consistent extension service is required for that purpose, and is normally - particularly for the ordinary peasantry - proffered by the government extension personnel which, as will be recalled, are seriously overstretched. Both the Association of Master Farmers' Clubs and the Catholic Association Agricultural Co-operatives provide an efficient additional follow-up extension, mainly through the use of the advisory services of their more progressive and advanced farmers who, through their co-operative activities, freely assist their less progressive colleagues with advice and material help on a variety of farming aspects. These services have not only helped as a back-up extension programme to the official services but has also successfully managed to assess the level of peasant motivation, the degree of peasant adoption of new techniques, as well as the discipline and spirit of self-reliance in each co-operative group so that, in most cases, appropriate assistance has been given where and when it became necessary. There has been abundant evidence from my personal contacts made with the farmers and from the reports secured during this research to show that agricultural co-operation has been an effective source of additional extension

services, and hence has contributed to the co-operators' improved farming performance.

(d) Provision of Capital and the Necessary Agricultural Inputs

The application of adopted innovations, the achievement of sustained peasant agricultural growth, and eventual transformation - all require the use of substantial agricultural inputs. The purchase of these inputs needs a considerable amount of capital. But, unfortunately, as already indicated, the majority of peasant cultivators cannot afford to raise sufficient capital from their own meagre individual resources. Both co-operative organisations have enabled their members to save reasonably sufficient funds out of their own efforts, have offered their members viable loan schemes and secured reliable access to additional sources of fairly adequate credit and capital for the acquisition of these input items.

It has already been noted that possession of sufficient capital for an individual African farmer has never been a guarantee for obtaining the supplies. Often the individual farmer cannot get the brands and the quantities he needs. Even those he gets have not always been delivered on time.

The two agricultural co-operatives have nevertheless been extremely successful in securing for its members efficient and reliable channels for the supply of the necessary agricultural inputs. Because of their capacity to order inputs in bulk, the co-operatives succeeded in securing these inputs at reasonably reduced prices. The organisations also manage efficiently to deliver these inputs from the supply points to the far-flung parts of the rural areas in time for the farmers to use. All these facilities, as discovered during this research, are not available to the ordinary peasant farmers. It is no surprise, therefore, that the farming performance of the co-operators is more efficient and advanced than that

of the nonco-operators.

(e) Provision of Co-operative Facilities and Services

The typical Zimbabwean peasant agriculture suffers from shortages of labour supply (especially of able-bodied persons), of efficient and reliable draught power, of appropriate farming hardware, and of adequate and reliable transport facilities. The effects of these shortages in retarding the development of peasant agriculture have been covered in chapter five. The Association of Master Farmers' Clubs and the Catholic Association Agricultural Co-operatives have endeavoured, with some considerable degree of success, to alleviate the impact of these shortages.

Both organisations have provided an efficient collective labour force, particularly in areas where specialised knowledge is required, to the members. Co-operative labour has not only improved the quality of work supplied to the members but has also increased the quantity of the labour force available to each member of a group or club. Table 9.4 shows the labour input statistics, in hours, obtained from detailed case studies of six peasant farmers - three co-operators and three nonco-operators. It is clear from this Table that co-operators are capable of spending about five times more time (10,316.5 hours) on farm work per annum than are the nonco-operators (2,069.4 hours). The reason for the difference is not only the fact that the former are more motivated than the latter and that they therefore spend more time in their fields; but it is also, and largely so, the fact that each co-operator has a much wider labour supply base than has the nonco-operator.

Table 9.4 Chinamhora Farmers - Labour Supply, in Hours, per Farm, by Operation and Month (N = 6)

| MONTH | Manure preparation and Application | | Ploughing and Planting | | Weeding, Cultivation and Fertilizing | | Harvesting, Threshing and Shelling[1] | | Winter Ploughing and Land Improvements[2] | | Total Time (in Hours) | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Co-operators | NonCo-operators | Co-operators | NonCo-operators | Co-operators | NonCo-operators | Co-operators | NonCo-operators | Co-operators | NonCo-operators | Co-operators | NonCo-operators |
| October | 48.21 | 41.62 | 24.15 | 12.40 | - | - | 16.20 | 4.08 | 560.20 | 6.86 | 648.78 | 64.96 |
| November | 102.10 | 21.35 | 314.00 | 214.30 | 20.42 | 8.71 | - | - | 93.50 | - | 530.02 | 244.36 |
| December | 36.88 | 4.00 | 270.43 | 144.20 | 218.32 | 127.16 | - | - | 35.19 | - | 560.82 | 275.36 |
| January | - | - | 118.51 | 12.10 | 964.25 | 304.73 | - | - | 39.06 | - | 1,121.82 | 316.83 |
| February | - | - | 10.87 | - | 921.70 | 417.18 | - | - | 46.50 | 2.50 | 979.07 | 419.68 |
| March | 4.12 | - | - | - | 352.82 | 63.95 | 141.40 | 42.76 | 326.43 | 14.90 | 824.77 | 121.61 |
| April | 12.00 | - | - | - | 18.54 | 6.09 | 849.58 | 198.75 | 374.60 | 21.05 | 1,254.72 | 255.89 |
| May | 6.54 | 1.48 | 4.20 | - | 9.15 | - | 972.26 | 217.11 | 588.20 | 46.22 | 1,580.35 | 264.81 |
| June | - | - | 2.18 | - | 6.56 | - | 927.83 | 60.32 | 242.81 | 15.56 | 1,179.38 | 75.88 |
| July | - | - | - | - | - | - | 624.10 | 16.87 | 217.17 | - | 841.27 | 16.87 |
| August | 19.47 | - | - | - | - | - | 66.74 | 9.00 | 202.52 | - | 288.73 | 9.00 |
| September | 54.92 | 31.89 | 15.00 | 7.10 | - | - | 4.14 | - | 432.71 | 4.14 | 506.77 | 43.13 |
| TOTALS (Hours) | 284.24 | 100.34 | 759.34 | 390.10 | 2,511.76 | 927.82 | 3,602.25 | 548.89 | 3,158.89 | 111.23 | 10,316.48 | 2,078.38 |

Source: Research Data, 1980/81.

The two organisations have also been able to improve the supply of the members' draught power through the collective use of the members' draught animals. This has been a service of vital importance to a good number of the members since a considerable proportion of them have, at best, an extremely inadequate supply of draught power. There is ample evidence to show that these two models of co-operatives have successfully increased the availability of farm implements, tools, equipment and machinery to the members through either the collective ownership of some of these assets or the co-operative use of the members' own individual property. Finally, the co-operatives have provided fairly adequate, reliable and reasonably cheap transport facilities for the collection and delivery of agricultural inputs and the marketing of the members' agricultural surplus produce. The farmers have received their fertilizers, seeds and farm hardware in good time for use, and hence have increased the efficiency of their performance and the capacity of their adoption of farming innovations.

The role played by agricultural co-operation in providing all the above-mentioned services and facilities seems most obvious. That these services and facilities have assisted the members of the Association of Master Farmers' Clubs and of the Catholic Association Agricultural Co-operatives to overcome some of the problems that hinder the development of peasant agriculture seems equally obvious. It is not surprising, therefore, that there is such a remarkable degree of agricultural innovation among the co-operators. It appears equally clear that it has been the application of higher levels of modern farming skills and production techniques which has led to the sustained growth in the co-operators' agricultural output demonstrated in chapters seven and eight (see also Table 9.5). It seems safe, therefore, to suggest cautiously that it is agricultural co-operation which has been responsible for the differences observed in Table 9.1.

3.02 The Adoption of Innovations and Decision Making

The impact of agricultural innovations on peasant land productivity is further shown in Table 9.5. The figures in this Table show that the 160 co-operators interviewed have, since their joining the co-operatives, registered dramatic increases in productivity in the ten crops selected. Maize and groundnuts, the two commonest crops in the Zimbabwean peasant sector, have increased by as much as 493 per cent and 400 per cent respectively. Four others - cotton (118 per cent), sweet potatoes (175 per cent), sorghum (206 per cent) and sunflowers (122 per cent) - have each increased by well over 100 per cent. These co-operators cited seven major reasons for the increased yields. Table 9.6 gives all the seven reasons and the frequency each one is cited by the farmers. It seems clear that the peasant co-operators are fully aware and appreciative of the economic importance of the institutional agricultural co-operatives because, as demonstrated in Table 9.6, they seem to be clear of the economic implications of the services and facilities offered by these co-operatives.

If the co-operators were, either before or after joining these co-operatives, aware of the economic importance of the co-operatives and the consequent economic implications, it does not, therefore, seem unreasonable to postulate that their decisions to adopt modern husbandry practices and improved crop and livestock varieties must have been influenced by rational economic criteria (Arnon, 1981; Behrman, 1969; Hayami and Ruttan, 1971; Mellor, 1969; Schultz, 1964). This is not, however, to discount the possible influence of non-economic factors which, as already indicated in chapter five, play a considerable role in peasant decision-making processes (Bryce and Gross, 1943; Henshall, 1967; Schultz, 1976; Tarrant, 1974; von Neumann and Mogerstern, 1944).

Table 9.5 Crop Yields, in Bags per Hectare, Before and After Joining Co-operatives (N = 160)

| CROP | NO. OF PRODUCERS | YIELDS BEFORE | YIELDS AFTER | PERCENTAGE INCREASE |
|---|---|---|---|---|
| Cotton | 76 | 1,235.5 kg. | 2,691 kg. | 118 |
| Groundnuts | 160 | 6.2 bags | 31.0 bags | 400 |
| Groundpeas | 71 | 7.0 " | 13.0 " | 86 |
| Maize | 160 | 11.0 " | 66.0 " | 493 |
| Millet | 43 | 12.0 " | 18.5 " | 60 |
| Potatoes (sweet) | 93 | 20.0 " | 54.4 " | 175 |
| Rapoko | 87 | 13.3 " | 20.0 " | 48 |
| Rice | 65 | 9.0 " | 16.0 " | 70 |
| Sorghum | 61 | 8.0 " | 24.2 " | 206 |
| Sunflowers | 53 | 5.0 " | 10.4 " | 122 |

Source: Research Data, 1980/81.

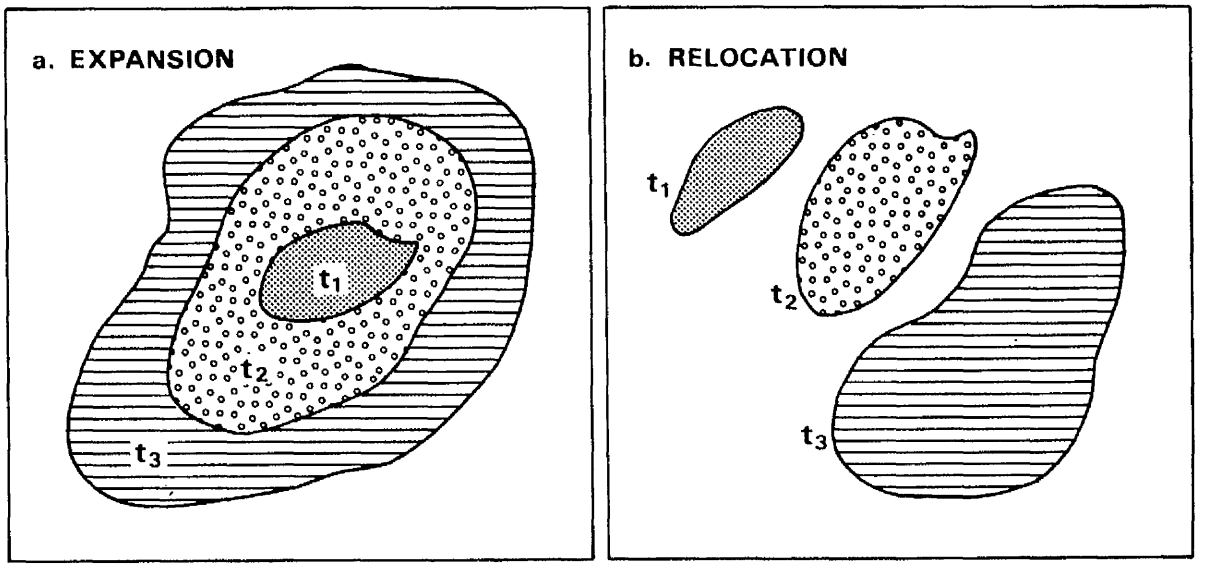
Table 9.6 Reasons for Increased Yields as given by Co-operators (N = 160)

| REASON CITED | FREQUENCY |
|---|---|
| Access to credit and loan facilities for inputs | 100% (160) |
| The use of hybrid seeds | 95% (152) |
| Efficient supply of the inputs (reliable transport) | 91% (146) |
| Improved farming skills and technical know-how | 78% (124) |
| Adequate labour supply from the group/club | 73% (117) |
| Reliable draught power from the group/club | 69% (110) |
| Use of fellow members' implements, tools, equipment, etc. | 68% (109) |

Source: Research Data, 1980/81.

Evidence obtained from the 160 co-operative farmers shows that, of the various existing diffusion models discussed in the literature (Bowden, 1965; Hagerstraand, 1953; Morrill, 1965; Newbury, 1980), only two (the expansion diffusion and the relocation diffusion models) seem to be applicable. The formation and growth trends of both the Master Farmers' Clubs and the Catholic Association Agricultural Co-operative Groups, as well as the subsequent adoption of modern farming innovations by the members, have spread from specific points where the first groups or clubs were initiated (Figure 9.2a). For example, after the formation of two pioneer groups of Beta and Rota near Musame Mission, the rest sprang up and spread out to cover the whole of Mangwende region within a decade. This shows the importance of spatial contiguity in the transmission of new innovations. The importance of time in the diffusion of modern agricultural practices has already been noted in the previous chapter.

**FORMS OF DIFFUSION PROCESSES IDENTIFIED**




*Source: According to Newbury, 1980. Fig. 34.52*

**Fig. 9.2**

It has also been observed that the emergence of some groups and clubs has been a function of the relocation diffusion process (Figure 9.2b). For instance, the formation of the Catholic Association agricultural groups in Uzumba (Figure 8.2) was initiated by two C.A. co-operative members who had been in the Musame area before. It seems valid, therefore, to suggest that the diffusion of agricultural innovations depends on the availability and accessibility of farming information, on the acceptability and efficiency of the channels which communicate that information and, obviously, on the farmer's willingness and ability to utilise the adopted innovations. This appears to support the explanatory validity of the diffusion model discussed by, among others, Hagerstraand, 1953; Hayami and Ruttan, 1971; Henshall, 1967; Newbury, 1980; Rogers, 1962; Sauer, 1969; and Vavilov, 1949.

## 4. POSSIBILITIES OF NATIONAL REPLICATION OF THE NON-GOVERNMENT CO-OPERATIVE MODELS AND CONCLUSION

### 4.01 Prospects for the Future of Non-Government Co-operative Models

The non-government sponsored agricultural co-operative models dealt with in this thesis are the Association of Master Farmers' Clubs and the Catholic Association Agricultural Co-operative Scheme. Evidence so far covered has shown that these two models have been fairly successful in accelerating the diffusion of modern agricultural innovations among some Zimbabwean peasant farmers. It seems relevant to investigate the appropriateness and the prospects for the national replication of the two models.

It has already been noted that the Association of Master Farmers' Clubs, which started in 1967 initially as a provincial organisation in Masvingo, successfully spread itself, within twelve years, to all other provinces and became a national organisation in August 1980. Soon the Government recognised that the services offered by the Association would

be of some considerable benefit not only to the master farmers but also to the entire Zimbabwean farming peasantry. Consequently, government officials persuaded the leadership of the Association to open its membership to non-master farmers as well. In July 1982, the Association opened up its membership to non-master farmers, and became the National Farmers' Association of Zimbabwe.

Officially opening the 1982 Annual Congress of the Association (Plate 4b) on the 6th of September 1982, the Minister of Agriculture revealed the importance of the Association as the representative organisation for the Communal Lands farmers when he said

> "However, the Government is well aware of your problems and I urge you constantly to make the authorities aware of your needs and requirements..... Research is now geared towards boosting production in the Communal and small-scale sectors" (1)

Addressing the same Congress on the same day, the Minister of Lands, Resettlement and Rural Development[3] confirmed the national importance of the Association when he pledged that

> "We want - and I am appealing to you today - to give land that will be acquired [for resettlement] this year to members of your Association" (2)

Such Government support provides a clear and loud testimony of the high esteem in which the Association of Master Farmers' Clubs is held as an appropriate peasant agricultural development strategy. Prospects for the national replication of the Association look bright and guaranteed.

Initial attempts to replicate the Catholic Association Agricultural Co-operative Scheme were made in 1980 when the Manicaland Development Committee[4] requested Silveira House staff to assist in the establishment of an agricultural project on the same model as the Catholic Association scheme. Silveira House provided initial awareness and motivation courses to the first members of this project, which covers the triangular region of Inyanga - Honde and Rusape in Manicaland Province (Fig. 9.3)[5]. By August 1981, the project comprised 245 groups with a membership of 4,052

**ZIMBABWE: REPLICATION OF THE CATHOLIC ASSOCIATION AGRICULTURAL CO-OPERATIVE MODEL, BY DECEMBER 1981.**

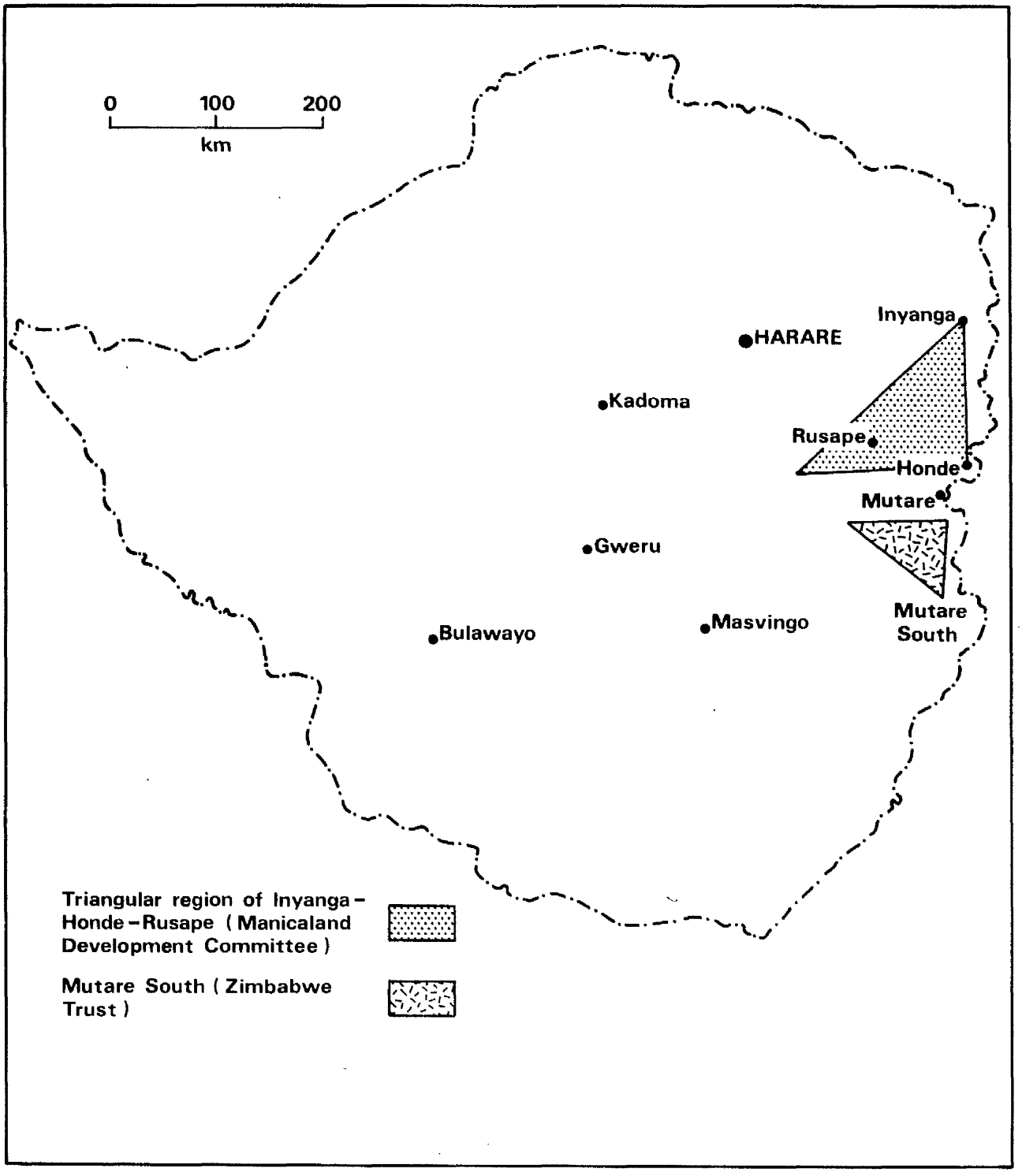



Fig. 9.3

peasant farmers. Figure 9.3 also shows the location of the Mutare South project which is a replication of the Catholic Association scheme. Silveira House Agricultural Department assisted the Zimbabwe Trust,which initiated this project, in drawing up project proposals. This scheme has aroused great interest with Barclays Bank International in London[6], who, according to the Trust,are prepared to raise sufficient funds that could permit the replication of the Catholic Association scheme throughout Zimbabwe.

The success story of the Catholic Association Agricultural Co-operative Scheme has not only been confined to Zimbabwe. For instance, Silveira House reports that

> "The Ford Foundation has made approaches to leaders of the Busoga Scheme in Uganda for a possible replication of our scheme in that part of Africa; and some interest for the scheme has been expressed by some development agencies from Ghana" (3)

In 1982, Eshowe Diocese in South Africa also expressed some interest in the project.

During the time of this research, there were plans from the Ministry of Lands, Resettlement and Rural Development to request the weaned Catholic Association Agricultural Co-operative groups to register formally as co-operative societies before the end of 1982. This step was designed to facilitate the replication of the scheme throughout Zimbabwe.

## 4.02 Co-operative Impact on Peasant Agricultural Transformation and Final Comments

This chapter - and, indeed, this whole thesis - has set out to demonstrate that privately-initiated agricultural co-operation has played a considerable role in the diffusion of modern farming innovations, and that Zimbabwean peasant farmers have both the will and the capacity to innovate.

It is hoped that the evidence obtained from the forty farmers selected for an in-depth analytical study has convincingly shown that the levels

of agricultural technical change and the resultant increased productivity among the co-operators are higher than that of the nonco-operators. This seems to imply that the farmer's farming sophistication is higher than that of the latter. By a process of 'likely-causal' elimination, this chapter has attempted to demonstrate that these differences cannot be explained in terms of the possible known factors (Table 9.3). It has argued that if the ten possible factors, in Table 9.3, cannot be responsible for the differences then the membership of and participation in agricultural co-operatives must therefore account for the differences observed. To be more specific, it has been shown that it is the facilities and services offered by the agricultural co-operatives which have been responsible for increased productivity among the co-operators.

Although the tests used are somewhat elementary, too one-dimensional and possibly too subjectively applied to support firm conclusions, the results obtained, and the strength of one's own personal impressions in the field, appear to indicate that privately initiated agricultural co-operation has contributed markedly to the diffusion of agricultural innovations and the consequent agricultural development experienced by peasant co-operators. Agricultural co-operation of the right kind can, therefore, be an effective vehicle of peasant farming transformation in Zimbabwe.

The same evidence and personal observations in the field have also shown that, given the right conditions and incentives, Zimbabwean peasant farmers are both willing and capable of innovating. So what may seem to 'outside observers' to be a bunch of lazy and conservative African peasantry with non-acquisitive economic mentality (Hughes, 1974; Jordan, 1973; Yudelman, 1964) is after all a community of rational and economically motivated men and women with sound economic aspirations. It seems pertinent therefore for a development programme planner - who is usually an expatriate Western 'expert' or an indigenous technocrat - to appreciate

this point if the strategies he designs are to be effective. Otherwise, if he insists on holding to a contrary view,

> "It is difficult for him to avoid being condescending and patronising. And unless he keeps his own assumptions and criteria for judgement under review, it will be impossible to avoid being irrelevant" (B. W. Hodder, 1978) (4).

## Chapter 9: FOOTNOTES AND REFERENCES

9.1 Threshing and shelling include the preparations for marketing.

9.2 Land improvements include the making of compost, contour cleaning and digging, stumping, fence-mending, etc.

9.3 The Ministry of Lands, Resettlement and Rural Development, it must be recalled, is responsible for the administration of all registered co-operative societies.

9.4 The Manicaland Development Committee is financially backed by NOVIB of the Netherlands for this project.

9.5 The triangular region of Inyanga-Honde-Rusape covers the following Communal Lands: Mutasa, Manga, Iyanga, Zimbiti, Nyamaropa and Chiduku.

9.6 The politics or economic morality of involving the Barclays Bank International in funding such a replicated scheme is no business of this thesis; the fact is mentioned here merely to show the popularity of, and prospects for, replicating the Catholic Association Agricultural Co-operative Scheme.

## SOURCES OF QUOTATIONS AND REFERENCES

9.1 Senator Denis Norman (1982) - quoted in The Herald, September 7, 1982, p. 1.

9.2 Moven Mahachi (1982) - Ibid., p. 1.

9.3 Silveira House Annual Report, 1981, p. 78.

9.4 Hodder, B. W., 1978: Summary and Conclusions in Mountjoy, A. B. (ed.) The Third World - Problems and Perspectives, p. 151.

APPENDIX I(a). CO-OPERATIVE PRINCIPLES

Definition -

Co-operative Principles are those practices which are essential, that is absolutely indispensable, to the achievement of the Co-operative Movement's mission.

1. Membership - Membership of a co-operative society should be voluntary and available without artificial restriction or any social, political, racial or religious discrimination, to all persons who can make use of its services and are willing to accept the responsibilities of membership.

2. Democratic Administration - Co-operative societies are democratic organisations. Their affairs should be administered by persons elected or appointed in a manner agreed by the members and accountable to them. Members of primary societies should enjoy equal rights of voting (one member, one vote) and participation in decisions affecting their societies. In other than primary societies, the administration should be conducted on a democratic basis in a suitable form.

3. Interest on Capital - Share capital should only receive a strictly limited rate of interest, if any.

4. Patronage Rebate - The economic results arising out of the operations of a society belong to the members of that society and should be distributed in such a manner as would avoid one member gaining at the expense of others.
This may be done by decision of the members as follows:-

continued.....

APPENDIX I(a)(continued)

(a) By provision for development of the business of the Co-operative;

(b) By provision of common services; or,

(c) By distribution among the members in proportion to their transactions with the Society.

5. Continuous Education - All co-operative societies should make provision for the education of their members, officers, and employees and of the general public, in the principles and techniques of Co-operation, both economic and democratic.

6. Growth by Mutual Co-operation among Co-operatives - All co-operative organisations, in order to best serve the interests of their members and their communities should actively co-operate in every practical way with other co-operatives at local, national and international levels.

Source: Report of the I.C.A. Commission on Co-operative Principles, 1976 (pp. 35-36).

APPENDIX I(b)

Classification of Co-operative Societies

1. According to the functions they fulfil in relationship to the members' economic interest:
   - (a) Productive societies
   - (b) Auxilliary societies
     - (i) supply of goods, credit, housing and other services
     - (ii) marketing of goods and investment of surplus funds.
2. According to the legal status of the societies:
   - (a) Unregistered
   - (b) Registered
     - (i) with unlimited liability
     - (ii) with multiple liability
     - (iii) with limited liability
3. According to the area of operation:
   - (a) urban
   - (b) rural
4. According to the level of operation:

| | |
|---|---|
| (a) Primary | (a) Local |
| (b) Secondary (or Union) | (b) Regional |
| (c) Tertiary (or Federation) | (c) National |
| (d) Apex | (d) Supranational or international |

5. According to the sector of the economy the societies are engaged in:
   - (a) Agriculture
   - (b) Small industries
   - (c) Retail and wholesale trade
   - (d) Service trade (banking, insurance, transport, etc.)

continued.....

APPENDIX I(b) (continued)

6. According to the economic status of the members:

   (a) Producers

      (i) farmers

      (ii) traders

      (iii) craftsmen

   (b) Consumers

   (c) Workers

Source: According to Helm, 1968.

APPENDIX II(a).

SUMMARY OF THE CONTENTS OF QUESTIONNAIRE I - To Peasant Farmers

1. The Farmer

1.1 The farmer's age and marital status.

1.2 The farmer's family - number of children and other dependants.

2. Peasant's Level of Literacy

2.1 Reading and writing in the two major vernacular languages - Ndebele and Shona - and in English.

2.2 Qualifications obtained at school.

3. Peasant's Land

3.1 The size of land owned and rented in acres and whether the farmer is satisfied.

3.2 How the land was acquired and the period the land has been tilled.

3.3 The type of the soil in the farmer's field.

3.4 Distance of the field from the homestead.

3.5 Distance of the village to the market.

4. Traditional Agricultural Co-operation

4.1 Participation in traditional co-operative activities - Humwe/nhimbe; madzoro/majana - and collective activities.

4.2 The main bonds for co-operative and/or collective activities - family relationship, friendship or neighbourhood.

continued.....

APPENDIX II(a)(continued)

5. Peasant Agricultural Promoting Organisations

5.1 The peasant's knowledge of any agricultural organisations, listing them in order of their importance in the interviewee's opinion.

5.2 Present and previous membership of any agricultural organisation.

6. Labour

6.1 Number of children and other dependents supplying labour at the farm.

6.2 Additional sources of labour - hired and/or co-operative labour force.

7. Farming Knowledge

7.1 The farmer's experience in farming and a comparison of his/her methods with those of his/her parents.

7.2 The role of a farming organisation (a club or co-operative) in transforming the interviewee's methods of production.

8. Sources and Methods of Acquiring Farming Knowledge.

8.1 Enumeration of all the sources - radio, film, slides, any literature, visits to agricultural demonstration and research centre, training courses, field days, etc. - of acquiring modern farming knowledge, ranking them in order of effectiveness.

8.2 The efficiency of selected methods in imparting farming knowledge.

continued.....

APPENDIX II(a)(continued)

9. Government Extension Services

9.1 The visit of the local government extension assistant to the village within a given time.

9.2 The farmer's attendance at the extension assistant's farming classes and the knowledge gained, and whether utilised.

9.3 The differences of the impact of these classes before and after joining an agricultural co-operative.

9.4 An evaluation of the effectiveness of the major extension assistant methods, e.g. the personal farm-to-farm visits, the weekly/fortnightly farming classes, etc.

10. Agricultural Supplies and Inputs

10.1 The use of any inputs - livestock manure, compost manure, fertilizers, pesticides, new seeds, stock feeds and medicines, poultry feeds and medicines; others - and stating the adequacy and efficiency of sources of supply in order of their effectiveness.

10.2 The interviewee's tendency in using modern inputs (increasing, or decreasing or remaining the same) since joining the co-operative.

10.3 The farm implements used - from individual ownership, co-operative ownership, hiring or borrowing - and the suppliers of farm hardware, ranked in order of efficiency.

10.4 Access to financial aid or credit facilities to enable the acquisition of the necessary agricultural inputs and supplies, stating whether this access was before or after joining the co-operative or club.

continued.....

APPENDIX II(a)(continued)

10.5 The adequacy of credit facilities available to the interviewee.

11. Peasant Land-use and Cropping Patterns

11.1 The main peasant crops grown and livestock raised before and after becoming a co-operator.

11.2 The dominant peasant cropping patterns, e.g. intercropping (crop combinations), planting in rows, chequered pattern, broadcasting, etc., noting the interviewee's average acreage (hectarage) within a given period of time.

11.3 Which patterns are increasing, or decreasing since joining the co-operative.

11.4 Does the experience of applying the identified patterns predate the interviewee's membership of a co-operative?

12. Peasant Production and Productivity

12.1 The acreage (hectarage) planted with the major crops in 1979/80 and in 1980/81, and the proportion of land left fallow and reasons.

12.2 A comparison of the acreage of a selected list of major crops before and after the interviewee's membership of a co-operative, and a comparison of the average yields per acre (ha.).

12.3 Is productivity improving since joining the co-operative, and the reasons for the tendencies identified?

12.4 The major proportions of livestock raised for draught power, for cash purposes, for domestic consumption and for status symbol, stating the number of animals born at home, bought in the locality or away.

12.5 An evaluation of one's crop and animal husbandry.

continued.....

APPENDIX II(a)(continued)

13. Consumption and Marketing

13.1 The main food and cash crops, showing the acreages (hectarage) used for each crop and the proportions of the produce sold, consumed or donated in 1979/80 and in 1980/81.

13.2 The most profitable peasant cash crops and livestock, ranking them in order of profitability.

13.3 Expenditure on the necessary farming inputs and supplies, and the gross income from farm produce, and hence determining profit or loss.

13.4 The marketing facilities and services (the distance to markets, mode of transport and its reliability and the grading system) available to the interviewee.

13.5 Direct access to a selected list of marketing organisations - G.M.B., C.M.B., C.S.C., Colcom, etc. - stating whether access was before or only after joining the co-operative,and the adequacy of prices received.

13.6 Additional sources of income apart from farm produce, stating proportions.

14. The Major Problems

14.1 The major problems retarding the development of peasant agriculture, ranking them in order of their severity and effects in reducing peasant yields.

14.2 The major pests and diseases affecting crops and yields in 1979/80 and 1980/81, and proposed solutions.

14.3 The Government's role in solving the identified problems - comparing pre-independence governments and the present government.

continued.....

APPENDIX II(a)(continued)

15. Retrospect and Prospect

15.1 All the factors - both physical and human - which have helped peasant farming.

15.2 The contributions made by selected rural development agencies towards peasant agriculture.

15.3 The role of pre-independence governments, between 1930 and 1979, in improving peasant agriculture.

15.4 The meanings of, and differences between, collective and co-operative farming, and the potential of both.

15.5 The need and proposals for changes in peasant land tenure system and land-use patterns.

APPENDIX II(b)

SUMMARY OF THE CONTENTS OF QUESTIONNAIRE II: To Government Extension Staff/ Personnel.

1. Training and Experience

1.1 Staff qualification and when qualified.

1.2 Staff experience; the areas, districts and provinces in which the interviewee worked.

2. Peasant Agriculture

2.1 The Government Ministries responsible for administering peasant agriculture since the interviewee joined extension service.

2.2 Which of the Ministries is, in the interviewee's opinion, best suited to deal with peasant agriculture?

2.3 The number of peasant farmers - both co-operators and non-co-operators - in the interviewee's area.

3. The Assistant's Job Description

3.1 The major aims of extension service.

3.2 The main objectives to be achieved.

4. Extension Work Methods

4.1 The main methods employed to achieve the set objectives, ranking them in order of effectiveness.

4.2 The adequacy of current extension service to peasant agriculture, and suggestions for improvements.

continued.....

APPENDIX II(b)(continued)

5. Major Problems and Measures

5.1 The problems hindering the interviewee from achieving the set objectives, and proposed action to solve them.

5.2 The major problems retarding the development of peasant farming, and the proposed solutions.

6. Peasants' Responses to Extension Services

6.1 Comparative response rates within given sets of selected farmer-categories - e.g. between male and female; the young and the old; the literate and the illiterate; the co-operator and the nonco-operator; etc.

6.2 Reasons for the above response rates.

7. Peasant Production and Productivity

7.1 The average yields per acre (ha.) of the major crops grown by the peasants, differentiating between co-operators and nonco-operators.

7.2 The main yields tendencies (whether increasing or decreasing) for the past ten years.

8. Consumption and Marketing

8.1 The main food and cash crops, indicating average acreage (hectarage) used for each crop, and proportions of produce used for each purpose for the past ten years.

8.2 The co-operators' and nonco-operators' proportions of cash cropping.

8.3 The most profitable peasant cash crops and livestock, ranking them in order of profitability.

continued.....

APPENDIX II(b)(continued)

8.4 The peasant farmer's annual gross income from farm produce.

8.5 Which is more profitable to your peasant farmers, crop production or livestock production?

8.6 The marketing facilities and services (the distance to markets, roads, transport and the grading system) available to interviewee's farmers.

9. Supplies and Agricultural Inputs

9.1 The proportion of the interviewee's farming community using new seeds, fertilizers, pesticides, herbicides, compost manure, etc., and whether this is a response to extension advice.

9.2 The differences in the use of these modern agricultural inputs between co-operators and nonco-operators.

9.3 The adequacy and efficiency of the sources of the necessary agricultural inputs and general farming hardware.

10. Auxiliary Organisations

10.1 The contributions made towards peasant agriculture by selected organisations, ranking them in order of effectiveness.

10.2 The contributions made towards peasant agriculture by chosen government departments, ranking them in order of their effectiveness.

11. Peasant Land-use Patterns

11.1 The major peasant crops produced and livestock raised.

11.2 The main peasant cropping patterns in the interviewee's area.

continued.....

APPENDIX II(b)(continued)

11.3 The tendency for intercropping among both the co-operators and the nonco-operators, showing the major crop combinations intercropped and the reasons for this practice.

11.4 The role of extension services in current land-use patterns.

12. Government Contribution

12.1 The role of pre-independence Governments, between 1930 and 1979, in improving peasant agriculture, ranking the contributions in order of importance.

12.2 The present Government's policy towards peasant agriculture, ranking the plans in order of priority.

12.3 The meanings of, and differences between, collective and co-operative farming, and the potential effectiveness of both.

12.4 Proposals for changes in peasant land tenure system and land-use patterns.

12.5 General Comments on peasant agriculture and agricultural co-operation.

APPENDIX II(c)

SUMMARY OF THE CONTENTS OF QUESTIONNAIRE III: Agricultural Promoting Organisations

1. The Aim and Objectives of the Organisation

1.1 The overall aim of the organisation on peasant agriculture.

1.2 The immediate objectives to be achieved.

2. The History of the Organisation

2.1 The nature - whether statutory or voluntary, national, provincial or regional - of the organisation.

2.2 The size of the organisation, when it started and its present one.

3. Annual Activities and Methods of Operation

3.1 The major annual activities according to the season.

3.2 All the methods used in promoting peasant agriculture, ranking them in order of their effectiveness.

4. Problems and Measures

4.1 The main problems affecting peasant agriculture, listed in order of their severity.

4.2 The solutions prescribed and their effectiveness.

4.3 The adequacy of selected government services to peasant agriculture.

5. Achievements

5.1 Peasants' response to the organisation's services, noting regional/areal differences.

5.2 Comparative response rate within given sets of selected farmer-categories - e.g. between male and female; the young and the

continued.....

APPENDIX II(c)(continued)

old; the literate and the illiterate; the co-operator and the nonco-operator; the urban migrant and non-migrant.

5.3 The effectiveness of the organisation's services to peasant farmers, noting the peasant farmers' participation in the scheme, the farmers' use of agricultural inputs, crop and livestock productivity and annual sales of farm produce (both crops and livestock) within a given period.

6. The Contribution of the Co-operatives to Peasant Farming

6.1 The types of co-operatives engaged in peasant farming and the organisation's relationship with any of the identified co-operatives.

6.2 Contributions made to peasant agriculture, ranking the co-operatives in order of their contributions and noting the failures.

7. The Government Extension Services

7.1 The organisation's opinion on the usefulness of government extension services.

7.2 The organisation's working relationship with government extension services.

8. Relations with the University of Zimbabwe

8.1 The organisation's relationship with any department at the University of Zimbabwe.

8.2 Any relevant research on peasant agriculture or related field done by the University of Zimbabwe.

continued.....

APPENDIX II(c)(continued)

8.3 Any relevant research on peasant agriculture or related field done by the organisation.

9. Relations with the Government

9.1 The organisation's relationship with any Government Ministry.

9.2 The organisation's relationship with the former Ministry of Internal Affairs.

9.3 The organisation's opinion on pre-independent governments' contribution towards peasant agricultural development.

10. Future Prospects for Peasant Farming

10.1 The organisation's evaluation of its future role in peasant agricultural development.

10.2 Prospects for future changes in peasant land tenure system and land-use patterns.

10.3 The present Government's policy towards peasant agriculture, ranking the plans in order of priority.

10.4 The meanings of, and differences between, collective and co-operative farming, and the potential effectiveness of both.

10.5 General comments on peasant agriculture and agricultural co-operation.

APPENDIX II(d)

ORGANISATIONS INTERVIEWED AND/OR CONTACTED (N = 12)

| ORGANISATIONS | STATUS |
|---|---|
| Agricultural Finance Corporation | Parastatal |
| Agricultural Marketing Authority | Parastatal |
| Agritex Development Area Groups | Private |
| Catholic Association Agricultural Scheme | Private |
| Christian Care | Private |
| Henderson Research Station | Parastatal |
| Makoholi Research Station | Parastatal |
| National Association of Master Farmers' Clubs | Private |
| Tribal Trust Land Development Corporation | Parastatal |
| Whitsun Foundation | Private |
| Windmill Masvingo Clubs | Private |
| Zimbabwe National Farmers' Union | Private |

APPENDIX III(a): LIVESTOCK VERNACULAR NAMES

| GENERAL TERMS | ENGLISH TERMS | VERNACULAR TERMS |
|---|---|---|
| | Bull | Hando; Handira |
| | Cows | Mhou |
| Cattle | Ox | Jon'osi; Nzombe |
| (Nombe/N'ombe) | Calf | Mhuru |
| | Bull-calf | Chigondoro chebhuru |
| | Heifer | Tsiru |
| Donkey | Donkey | Mhongoro |
| (Dhongi) | Foal | Dhongwana |
| Duck | Drake | Gono redhadha |
| (Dhadha) | Duck | Nhunzvi yedhadha |
| | Duckling | Chana chedhadha |
| Fowl | Hen | Mhambo |
| | Cock | Jongwe |
| (Huku) | Pullet | Sheche |
| | Chicken | Hukwana: Katiyo |
| Goat | Billy-goat | Gotora; Hotora |
| (Mbudzi) | She-goat | Nhunzvi-yembudzi; Dimbura |
| | Kid | Mbudzana |
| Horse | Stallion | Bhiza Gono |
| (Bhiza) | Mare | Bhiza Gadzi |
| | Foal | Jeche |
| Pig | Boar | Gono renguruve |
| (Hochi/Nguruve) | Sow | Nhunzvi yenguruve |
| | Young - Female | Sheche |
| | Piglet | Ngurwana |
| Pigeon (Hangaiwa) | Pigeon | Hangaiwa; Kwirimba |
| Hare/Rabbit | Buck | Hono yeshuro/Tsuro |
| (Shuro/Tsuro) | Doe | Nhunzvi yetsuro |
| | Leveret | Nhohwa |

continued.....

APPENDIX III(a)(continued)

| | | |
|---|---|---|
| Sheep (Gwai/Hwai) | Ram | Gondohwe/Hondohwe |
| | Ewe | Nhunzvi yegwai |
| | Lamb | Gwayana/Hwayana |
| Turkey (Ngarukuni) | Tom | Jongwe rengarikuni |

APPENDIX III(b): VERNACULAR TERMS USED BY THE FARMERS

| Vernacular Term | English Term |
|---|---|
| Badza | Hoe; Plough |
| Chidhaka | Darkish loamy soil |
| Chikwekwe/chishambwe | Tick |
| Chirugwi/zumbu | Fowl-run |
| Chisi | Day on which work in the fields is forbidden by ethnic ancestral spirit |
| Chivomvu | Red clayey soil |
| Danga remombe | Cattle kraal;Byre |
| Danga renguruve | Pig sty |
| Dhunduru/gandiwa | Contour ridge (for soil conservation) |
| Doro | Vlei (usually low marshy land) |
| Dzoro/Jangano | Mutual agreement to combine forces in providing services in turns for the benefit of the individuals in the agreement. |
| Foro/muforo | Furrow |
| Gedhe | Gate |
| Geja/gejo | Plough |
| Humwe/nhimbe | Mutual work party where the convenor provides some drinks and sometimes food. |
| Hurudza | Outstandingly successful farmer |
| Ipwa/pwa | Sweet sorghum |
| Ivhu | Soil |
| Jecha | Sandy soil |
| Kudyara | To plant; sow |
| Kugaya | To grind |
| Kuibva | Ripe |
| Kukama | To milk |
| Kukohwa | To harvest; Reap |
| Kukurura | To outspan |
| Kukweva | To draw (a cart of plough) |
| Kumera | To germinate |
| Kupfuwa | To raise livestock |
| Kurima | To plough |
| Kusakura/kushakura | To weed |
| Kusima | To transplant |
| Kusunga | To inspan |
| Kututa/kutakura | To carry; transport |
| Mafuro | Pasture; Grazing land |
| Maozwa/maorera | Compost |
| Mbesa/mbesanwa | Crops (in general) |
| Mbeu | Seeds |
| Mufudzi | Herdsman |
| Munda | Field |
| Mupfudze | Manure |
| Murimi | Farmer |
| Mushandirapamwe | Co-operative (working together) |
| Mutsetse | Row; Line |
| Ngoro | Cart (scotch-cart) |
| Ruzhowa/rutsito | Fence |
| Tseu/tsevu | A woman's small plot for ground-nuts or groundpeas |
| Zunde | The man's main field; used to refer to the chief's field. |

APPENDIX IV: TEHNICAL AND VERNACULAR CROP NAMES

| CROP | FAMILY NAME | TECHNICAL TERMS | VERNACULAR |
|---|---|---|---|
| Beans (soya) | Leguminosae (legume) | Glycine maximus | Bhinzi |
| Cassava | Euphorbiaceae (tuber) | Manihot ulissima | Mufarinya |
| Cotton | Fibre | Gossypium | Donje |
| Cowpeas | Leguminosae (legume) | Vigna unguiculata | Nyemba |
| Cucurbits | Cucurbitaceae | Cucumis sativus | Mapudzi/ manhanga |
| Groundnuts | Leguminosae (legume) | Arachis hypogaea | Nzungu |
| Groundpeas | Leguminosae (legume) | Voandzeia subterranea | Nyimo |
| Maize | Gramineae (cereal) | Zea mays | Chibagwe |
| Millet (grey) | Gramineae (cereal) | Pennisetum typhoideum | Mhunga |
| Millet (finger/red) (Rapoko) | Gramineae (cereal) | Eleusine Coracana | Rukweza |
| Rice | Gramineae (cereal) | Oryza sativa | Mupunga |
| Sweet Potatoes | Euphorbiaceae (tuber) | Ipomea batatas | Mbambaira |
| Sorghum | Gramineae (cereal) | Sorghum vulgare | Mapfunde |
| Sunflowers | Compositae | Helianthus annuus | Sanifurawa |
| Tobacco | - | Nicotiana Tabacum | Fodya |
| Wheat | Gramieae (cereal) | Triticum | Gorosi/Koroni |

APPENDIX V.

CONTEXTUAL DEFINITIONS OF COMMON TERMS USED IN THE THESIS.

1. Basic Farm Implements - include a single furrow plough, a cultivator, and a scotch cart; a planter and a harrow are important.

2. Adequate Family Labour Supply - at least two adults and three children, aged between thirteen and eighteen years, are considered to constitute adequate labour force.

3. Agricultural Innovations - refer to new ideas, new technologies (new seeds, new crops, new chemicals, new machinery, etc.), and new practices (production methods and cropping patterns).

4. General Agricultural Awareness - refers to the general knowledge of important farming techniques (Managerial efficiency in timing of ploughing, planting, etc.; depth in tilling; inputs application; harvesting) in both crop and animal husbandry; and simple skills in the scientific use of factors of production.

5. Necessary Agricultural Inputs - include all the factors that are technically involved in the production function, namely: land, labour, fixed capital, organic manure (animal and compost), chemicals (fertilizers, pesticides and insecticides, herbicides and fungicides), improved seeds, and management (planning and decision-making).

6. Diffusion - is the process by which innovations (ideas, technologies, fashions, diseases or human racial characteristics) are spread or transferred.

continued.....

APPENDIX V (continued)

7. Transformation - is a process which leads to improved changes in the farmer's managerial efficiency, farming sophistication and agricultural techniques and patterns which result in noticeable increase in productivity per given unit factor of production, and in scientific use of all factors of production.

8. Farming - is man's husbandry of the land, exercised through the tending of crops and livestock for subsistence or for economic gain; shall be used interchangeably with agriculture (where it covers both arable and pastoral activities).

9. Farming Sophistication - refers to a perception and attitude which regard farming not only as a seasonal part-time food producing activity/process, but as a complex full-time economic enterprise, that deals with a set of objects (farms/fields), with diverse attributes (characteristics) which are functionally related through circulating movements (of money, labour, different sets of inputs, etc.).

10. Scientific Use - is the systematic application of farming 'skills', and techniques in the use of agricultural inputs.

11. Natural Farming Region - also known as an agro-ecological region, is "conceived as a relatively large area wherein agricultural development is, and will be, conditioned by a dominant natural characteristic", or characteristics (Phillips et al., 1962).

continued.....

APPENDIX V (continued)

12. Crop Rotation - is a system in which different crops are grown on the same piece of land in a logical or scientific sequence.

13. Continuous Cropping - is a modern system in which the same piece of land is cultivated year after year; it is also known as sedentary farming.

14. Inter-Cropping - also known as mixed cropping, is an agricultural system in which several crops are cultivated simultaneously on the same piece of land with usually a major and minor crop.

15. Multiple Cropping - is the practice of cultivating more than one food, feed or industrial crop, usually in regular sequences, on the same piece of land within the course of a year.

16. Mixed Farming - refers to both the growing of crops and the raising of livestock.

17. Monoculture - involves the continuous growing of one type of crop on the same piece of land.

18. Ratooning - is the practice of letting the second crop grow up from the root structure of the first crop.

19. Relay Interplanting - involves the sowing or planting of a second crop between the rows of the first crop before it is harvested.

continued.....

APPENDIX V (continued)

20. Strategy - is a general plan designed and institutionalised to mobilise and utilise resources to attain specified objectives.

21. Agricultural Extension - is an informal out-of-school educational service for training and influencing farmers (and their families) to adopt improved practices in crop and livestock production, management, conservation and marketing.

APPENDIX VI

ALVORD'S TEN RULES OF EXTENSION SERVICES

1. Thorough stumping and clearing to ensure continuous easy tillage.
2. Fall or winter ploughing to conserve moisture and decompose crop residues.
3. The application of manure once every four years to every land in the rotation.
4. A second ploughing just before planting time to aerate the soil.
5. Thorough seedbed preparation to ensure uniform germination of seeds.
6. Planting of maize on the land where manure is applied each year.
7. Proper spacing and planting of all crops, row planted and broadcast.
8. The planting of a legume crop two years after manure is applied.
9. A heavy rooted, close growing crop after the legume
10. Crops must not be planted mixed together in the same land.

APPENDIX VII: THE VICTORIA ASSOCIATION OF MASTER FARMERS' CLUBS

CONSTITUTION
1978

1. NAME

The name of the Association shall be the "Victoria Association of Master Farmers' Clubs" (hereinafter referred to as "the Association". The Association shall be a non political body.

2. PRESIDENT

The Association shall have a President not more than two Vice Presidents and an unlimited number of Patrons.

The President, Vice President and Patrons shall be appointed annually at the Annual General Meeting of the Council.

3. INTERPRETATION

The Council as hereinafter defined shall be the final arbiter as to the meaning of this constitution any by-laws or regulations made thereunder, or, any part thereof.

4. OBJECTIVES

a) To promote the formation and affiliation of Master Farmer Clubs in the Victoria Province to the Association.

b) To promote better farming.

c) To advance the interests of Agriculture, by making available to all members the latest information on farming practices for discussion within their clubs.

d) To arrange competitions, field days, rallies and visits to further the adoption of better farming practices within the Victoria Province.

e) To ensure the maintenance and improvement of farming standards amongst members and to lead others by example and demonstration.

f) To assist in the training of new Master Farmers by appointing them probationary members of the Association and training and assisting them to attain the required standards.

g) To co-operate with Government, the Natural Resources Board, Tribal Authorities, Local Government Authorities, Commerce, Industry, Co-operative Societies and any other bodies interested in the furtherance of the Association's objectives.

h) To raise funds by subscription and entrance fees and to receive grants and donations for the furtherance of the Association's objectives.

i) To strike a balance between the educational aspects of the Association's activities and the encouragement of social and recreational activity within the clubs.

5. FUNDS

The assets of the Association shall consist of such monies and goods as may accrue to it from entrance fees, annual subscriptions, grants and donations. Such funds shall be used by the Association to achieve its objectives.

The financial year shall end on 30th June.

6. CONSTRUCTION OF THE ASSOCIATION

i) Constituent Elements

The constituent elements of the Association shall be the District of Master Farmers' Clubs of Bikita, Chibi, Chiredzi, Gutu, Ndanga, Nuanetsi and Victoria.

7. ORGANISATION OF THE ASSOCIATION

The Provincial Council hereinafter referred to as "Council".

The Provincial Council shall be the legislative and executive body of the Association and shall meet at least once a year at an Annual General Meeting and regularly at such other times and places as the President or in his absence the Vice Presidents shall determine.

The Council consists of:

a) A President who will be a Master Farmer and a member of the Association elected by the Council at the Annual General Meeting and who will hold office until the end of the next Annual General

Meeting.

Past Presidents will be eligible for re-election.

b) Two Vice Presidents who will be Master Farmers and members of the Association elected by Council at the Annual General Meeting and who will hold Office until the end of the next Annual General Meeting.

c) One representative who shall be a Master Farmer, from and appointed by each District Branch by Council.

It is recorded for the avoidance of doubt that the following branches, Bikita, Chibi, Gutu, Chiredzi, Ndanga, Nuanetsi and Victoria have all been recognised and approved by the Council.

d) One representative from and appointed by each Producer Association recognised and approved by Council as properly representative of members of the Association producing a particular commodity.

It is recorded for the avoidance of doubt that the Victoria Oriental Tobacco Producer Association and the Victoria Oilseeds Producer Association have so far been so recognised and approved.

e) One representative from and appointed by the Victoria Provincial Assembly of Chiefs.

f) The Secretary and Treasurer appointed by Council.

g) Such other persons as Council may co-opt from organisations who support the objectives of the Association.

8. HEAD OFFICE

The head office of the Association shall be at such place as Council shall from time to time determine.

9. MEMBERSHIP

a) Full membership of the Association is restricted to Master Farmers who have been awarded a Master Farmer Certificate and Badge and who have been admitted to membership of a club affiliated to the Association.

b) Honorary membership of the Association may be granted to officials who have been constitutionally appointed by a Club or District Branch, and whose appointment has been approved by Council.

c) Probationary membership may be granted by clubs to persons who are training to become Master Farmers. Probationary membership is restricted to a period of three years, in which time a probationary member must either qualify for full membership or resign. Probationary members must be registered by the club with the Agricultural Officer as "Master Farmer Trainees". Should it transpire at any time that any person has been admitted to membership on wrong or false facts, information or other defect, such membership may be terminated forthwith by Council or by the District Branch or Club concerned.

d) Termination of membership of the Association and affiliation to the Association by the recognised and approved constituent elements shall terminate:-

i) On the death of a member or on the dissolution or cessation of operations of a constituent element;

ii) on the assignment, surrender or sequestration of the estate of a member;

iii) on the resignation of a member or withdrawal of a constituent element duly accepted by Council;

iv) on the conviction of a member of a criminal offence which the Council considers renders him or her unfit to be a member; and

v) on the termination of membership by a two-thirds majority of the members of Council present and voting. For a breach of this Constitution, or the constitution of a constituent element, Branch or Club, or through

poor farming standards allowing the status of a Master Farmer to fall into disrepute, or for other reason which Council should consider good and sufficient, after the member has been afforded a reasonable opportunity of being heard in his or her own defence. Such defence may be made only in person or writing and not by legal or other representation.

Upon termination of membership the member shall forfeit all rights and privileges under the Constitution and shall have no claim against the Association or Club to recover any debt or damages due to him or her for subscriptions, entrance fees or otherwise but the Association or Club shall retain the right to claim from such erst-while member or constituent element any amount due and payable to the Association or the Club.

e) Affiliation Fees and Subscriptions: Each member may be required to pay an admission fee and/or annual subscription in such amount and at such time as his Club at its Annual General Meeting shall from time to time resolve.

10. POWERS

The Provincial Council is empowered to:-

i) Generally conduct the affairs or cause the affairs of the Association at all levels thereof to be conducted in a fit and proper manner in accordance with the aims and objectives of the Association.

To raise affiliation and entrance fees from constituent elements, Branches and Clubs in such amount as it may from time to time resolve.

ii) To raise or otherwise secure funds, monies or other property for the Association and to allocate or distribute them for the

purposes of the Association and regularly to provide budgets for the Association.

iii) Hold Annual General and other Meetings of the Association and fix the matters to be discussed or resolved thereat.

iv) Recognise, approve and establish constituent elements and their constitutions and to dissolve or otherwise terminate their existence for breach of this or their Constitutions or otherwise for good and sufficient reason determined by it.

v) Determine and formulate the policy of the Association and its constituent elements.

vi) Define the powers, constitution and areas of jurisdiction of the constituent elements of the Association and to ensure that the Clubs and their affairs are properly conducted.

vii) Require the constituent elements of the Association to report and otherwise make known to it all their affairs and to make available all their records,papers and documents upon demand.

viii) Delegate all or any of its powers to any constituent element of the Association or Committee of the Provincial Council which Committees may include persons who are not members of the Association or the Provincial Council for definite or indefinite periods and at any time to revoke or diminish such powers.

ix) To carry out all or any of the objects or powers of the Association.

x) Generally to do all such things as are incidental or conducive to the attainment of the foregoing objects or any of them, or which are calculated directly or indirectly, to further the overall interests of the Association.

xi) To purchase, take on lease, exchange, hire or otherwise acquire any movable or immovable property or any rights or privileges necessary or convenient to the purposes of the Association.

xii) To sell, improve, manage, lease, mortgage, dispose of, turn to account or otherwise deal with any part of the property, moveable or immoveable, or rights of the Association.

xiii) To construct, alter, repair and maintain any buildings required for the purposes of the Association.

xiv) To invest the funds of the Association not immediately required, upon such security or securities, if any, and on such terms and in such manner as may be deemed expedient.

xv) To borrow any sum or sums of money required by the Association upon such security, if any, as may be determined by it.

xvi) To guarantee or become liable for the payment of money by suretyship or otherwise or for the performance of any obligations by indemnity or otherwise and generally to transact all kinds of guarantee business.

xvii) To ensure into such contracts and do such acts and things as it thinks expedient for the purposes of the Association.

xviii) To institute, conduct, defend, compound or abandon any legal proceedings by or against the Association or its officers, or otherwise concerning the affairs of the Association, and also to compound and allow time for payment or satisfaction of any debts due, and of any claims or demands by or against the Association.

xix) To draw, make, execute, issue, accept, endorse, negotiate, discount and otherwise deal in cheques, bills of exchange, promissory notes, letters of credit, coupons, drafts, warrants, and other negotiable or transferable instruments and securities, and to receive money or valuables on deposit or for safe custody.

a) <u>The Constituent Elements</u>

Generally to conduct and manage their affairs in accordance with their constitutions, which constitutions and any amendments thereto at any time shall at all times be subject to the prior

written approval of Council which shall also have power to require amendment thereof at any time.

The constituent elements shall upon demand by Council formulate constitutions and amendments thereto and furnish them to Council for written approval. Until such approval is obtained, no constituent element may function.

The Constituent element may raise subscriptions and registrations from clubs in its area in such amount as it may from time to time resolve.

11. MEETINGS

a) Meetings of Council, all constituent elements and their committees shall be held regularly and as the extingencies dictate and as may be required by their individual constitutions or be the directions in writing of Council.

b) The Annual General Meeting of Council shall be held not later than the 30th September in each year upon not less than 30 days' notice in writing to all constituent elements of the Association entitled to send representatives. Any Special General Meeting shall be held when called by Council.

c) Unless otherwise provided herein or in the Constitutions of the constituents of the Association or by Council the following provisions shall apply:-

i) Unless otherwise determined by Council, the manner in which notice shall be given, the length of such notice, the persons to whom such notice shall be sent and the persons who shall have the right to attend, speak or vote at a meeting shall be determined by the relevant constituent element or organ from time to time provided that the accidental omission to give or the non-receipt of notice of any meeting to any person entitled to be present thereat or any error in any appointment

or attendance of any person shall not invalidate the proceedings of that meeting.

ii) Meetings shall be convened by the Secretary of the constituent element;

iii) The Chairman of the meeting may with the consent of the meeting adjourn such meeting from place to place and from time to time but no new business shall, without due notice, be transacted at any adjourned meeting;

iv) If any vacancy, casual or otherwise, rendering it incapable of forming a quorum that body shall have the right to continue to act only for the purpose of increasing its membership to the requisite number by making its own appointments. Such appointees shall continue in office for the period of office of the person whose place has been filled;

v) There shall be no voting by proxy;

vi) The Chairman shall have a casting vote in addition to his deliberate vot;

vii) Each individual shall have one vote and all matters shall be resolved by a majority of those present and voting by a show of hands. Any two or more persons, except at a meeting of the Provincial Council when it shall be five (5), may demand a poll in which event a ballot shall be held.

viii) Powers of co-option shall lie in all committees and in Council provided that this shall not extend to more persons than represent an equivalent one-fifth of the existing members thereof and such persons shall only hold office for 12 months' time. The persons co-opted may be persons other than members of the Association;

ix) The agenda and matters to be discussed, proposed and resolved may be determined by the constituent element, organ or committee concerned;

x) Procedure at all meetings may be determined by the meeting but the Chairman of any meeting shall be entitled in his discretion to consult any authority selected by the Chairman from time to time as a guide to the conduct of the meeting;

xi) The quorum at meetings shall be constituted by the attendance at the material time of not less than one-fifth of the persons entitled to attend. If a quorum is not present within fifteen minutes of the time appointed for the meeting, the meeting shall be adjourned to the same place, date and time in the following week when the persons then present shall constitute a quorum. A meeting called by requisition at which no quorum is originally present shall be dissolved;

xii) 5 persons may, by requisition in writing delivered to the Secretary of the constituent element or organ, call a meeting of persons entitled to attend.

12. APPOINTMENTS AND DELEGATES

Council shall set out for the observance of the Association the procedure and dates by which all persons shall be elected to office in any constituent element or organ and be appointed as representatives to attend Annual General Meeting or Special General Meetings of the Association.

13. RECORDS

All organs, constituent elements and committees shall cause true records and minutes to be kept of all affairs and proceedings. Such records shall be open to inspection by members of the Association.

14. INDEMNITY

No Trustee, member of any organ, constituent element or committee or officer of the Association shall be liable for the acts or omissions of any other Trustee, member of any organ, constituent

element or committee or officer whether by reason of his having joined in any receipt of money not received by him personally or for any loss of accounts or defect or title to any property acquired by the Association or constituent element or, on account of the insufficiency of any security in or upon which any monies of the Association or constituent element shall be invested or, for any loss incurred through the act or default of any banker, broker, or other agent or upon any ground whatsoever, other than his own wrongful and unlawful acts, omission or negligence.

15. AMENDMENT TO CONSTITUTION

This Constitution and any rules made hereunder may be amended, altered or added to from time to time at a meeting of the Provincial Council provided:-

a) that the notice convening the meeting states the full details of the proposed amendment; and

b) that such amendment is approved by a majority consisting of not less than two-thirds of the persons present and voting at such meeting.

16. DISSOLUTION

A) The Association may be dissolved whenever a resolution has been passed in favour of dissolution by a majority of not less than three-fourths of the persons entitled to be present and voting at a Special or Annual General Meeting of the Provincial Council of which thirty days' clear notice, specifying the intention to propose such resolution, has been given.

B) Upon the dissolution the property of the Association, not consisting of money, shall be sold and the proceeds, together with so much thereof as shall consist of money, shall be applied in satisfaction of the debts and liabilities of the Association and, subject thereto, the balance shall be disposed of as determined

by the meeting at which the resolution of dissolution shall have been passed.

17. CASUS OMISSUS

In the event of any casus omissus herein the Provincial Council shall decide or act as it may think proper.

18. Notwithstanding anything to the contrary elsewhere contained in this Constitution:-

a) No part of the funds of the Association shall be remitted beyond the Borders of Rhodesia except in payment for supplies or for services, the value of which accrues to persons ordinarily resident in Rhodesia.

b) No part of the funds or assets of the Association shall be made over, either voluntarily or compulsorily, to any other institution which has not been approved by the Minister of Finance in terms of Section 14 (2) (p) of the Income Tax Act, 1967.

c) In the event of the winding-up of the Association or its amalgamation with any other association or body, no funds or assets of the Association shall be transferred to, or amalgamated with, any other organisation or body whatsoever without the prior consent of the Minister of Finance having been obtained.

APPENDIX VIII.

COURSE PROGRAMME OF THE ASSOCIATION OF MASTER FARMERS' CLUBS, 1980

Friday:

- Welcome and Introduction to the Course
- The need for Peasant Farming Growth
- The Importance of Master Farmer Training and the Master Farmers' Role in Development.

Saturday:

- The Importance of Co-operative Supplying of the necessary Inputs and Marketing of the Peasants' Surplus.
- General Awareness of the Latest Agricultural Production Methods.
- Soil Conservation and the preservation of the Natural Resources.
- Soil Fertility Maintenance (the types and use of both organic and inorganic manure and other chemicals).
- Cash Cropping (cotton, groundnuts, maize, sunflowers, tobacco and garden vegetables).
- The Importance and Patterns of Crop Rotation.
- Group Discussions and Reports.

Sunday:

- Livestock Production (Cattle, Goats and Sheep)
- Livestock Production (Pigs, Poultry and Rabbits)
- Paddock Grazing and Cattle Pen-fattening.
- Capital Formation (savings clubs and farm accounts).
- The Nature and Organisation of the Association of Master Farmers' Clubs.
- Group Discussions and Reports.
- Course Evaluation and Group Resolutions.

Monday:

- Farewell and Departure of the Farmers.

Source: Masvingo Provincial Office of the Association of Master Farmers' Clubs.

## APPENDIX IX: THE ABBREVIATIONS USED IN THE THESIS

| | |
|---|---|
| A.D.F. | African Development Fund |
| A.P.A. | African Purchase Area |
| A.R.D.A. | Agricultural and Rural Development Authority |
| A.D.A. | Agricultural Development Authority |
| A.F.C. | Agricultural Finance Corporation |
| A.L.F. | Agricultural Loan Fund |
| A.M.A. | Agricultural Marketing Authority |
| A.R.C. | Agricultural Research Council |
| Agritex | Department of Africultural, Technical and Extension Services |
| C.A. | Catholic Association |
| cm | centimetre |
| C.S.O. | Central Statistical Office |
| C.N.C. | Chief Native Commissioner |
| C.L. | Communal Lands |
| C.D.T.C. | Community Development and Training Centre |
| Co-op. | Co-operative |
| C.M.B. | Cotton Marketing Board |
| Dept. | Department |
| D.C. | District Commissioner |
| E | East; eastern |
| e.g. | (exempli gratia) for example |
| et al. | (et alii) and other people |
| etc. | (et cetera) and so on; and the rest |
| F.A.Q. | Fair average quality |
| Fig. | Figure |
| F.A.O. | Food and Agricultural Organisation (U.N.) |
| G.A.Q. | Good average quality |
| Gov't. | Government |
| G.M.B. | Grain Marketing Board |
| G.D.P. | Gross Domestic Product |
| G.N.P. | Gross National Product |
| ha. | hectare |
| Ib., ibid. | (ibidem) in the same place |
| i.e. | (id est) that is |
| I.C.A. | International Co-operative Alliance |
| kg | kilogramme |
| km | kilometre |

continued.....

APPENDIX IX (continued)

| | |
|---|---|
| m | metre |
| mm | millimetre |
| N.C. | Native Commissioner |
| N/R | no records available |
| N | North; northern |
| NE | North east |
| N/A | not applicable or not available |
| No. | number |
| N - 10 | number of respondents under considerations |
| o/s | outstanding |
| % | per cent |
| PPRLF | Pump priming revolving loan fund |
| R.S.C. | Rural service centre |
| S.L.A. | Sabi Limpopo Authority |
| S | South; southern |
| SE | South east |
| sq. | square |
| T.T.L. | Tribal Trust Lands |
| TILCOR | Tribal Trust Land Development Corporation |
| Vol. | volume |
| W | West; western |
| Y.F.C. | Young Farmers Clubs |
| Z$ | Zimbabwean dollar |

APPENDIX X

THE DUTIES OF THE SILVEIRA HOUSE AGRICULTURAL PROJECT CENTRAL HEADQUARTERS STAFF.

1. Director:

i) To give direction to central training activities and to supervise the entire scheme.

ii) To continue building up the Silveira House Agricultural model as it expands and consolidates in established areas, into a refined model that may serve as a development guide for rural development.

iii) To assist and advise Government and non-government organisations to replicate the Silveira House model where needed through training and seminars.

iv) To visit and discuss with beneficiaries in operational areas in order to understand their problems and to work out solutions with them.

v) To conduct research in all aspects of the scheme with a view to improve its ways of operation and its benefits to the poor peasants.

2. Training and Supervisory Staff:

(a) Training:

- programme planning for all regions
- control of formation of new Catholic Association groups and weaning old ones
- running training courses at Silveira House
- judging at Good Farming Competitions (arranging for prizes, etc. and other judges)
- supervising the demonstration plot at Chishawasha
- supervising regional co-ordinator tasks
- lecturing at field days
- arranging central meetings of regional co-ordinators and area promoters for evaluation.

(b) Administration:

- co-ordination of bulk orders of inputs (seed, fertilizer, pesticide, etc.)
- co-ordination of transport facilities if not possible at regional level
- co-ordinating bulk orders for empty sacks
- supervising smooth running of marketing in all regions
- supervising Early Delivery Rebate - EDR scheme for fertilizer purchase at discount in June
- supervising paying out from sales to farmers from GMB cheques after deductions
- control and allocation of Micro-fund to regions, i.e. bulk ordering of scotch carts, etc., plus transport arrangements
- control and allocation of loans
- visiting all regions on regular basis (if possible)
- preparing annual reports of all activities within the project area.

APPENDIX XI

THE SILVEIRA HOUSE COURSE CONTENT

| | |
|---|---|
| First Day | - Introduction day |
| | - Welcome and need for Development |
| | - Awareness of Agro-ecological regions of Zimbabwe |
| | - Co-operative Action |
| | - Farmer and Christian Life |
| Second Day | - Soils - formation and general awareness |
| | - Soil Conservation (mechanical and biological methods) |
| | - Natural Resources maintenance |
| | - Fertility maintenance (organic and inorganic types of fertilizers and insecticides usages) |
| | - Land preparation and soil analysis |
| | - Farm accounts, savings clubs, etc. |
| | - Farmer and Nutrition, hygiene and child care |
| Third Day | - Field crops (food and cash crops - cotton and wheat is grown in some regions) |
| | - Maize, groundnuts, sunflowers, tomatoes and other garden crops |
| Fourth Day | - Our livestock production - cattle and poultry (protein and cash supply) |
| | - Sheep, pigs, goats, rabbitry and fish |
| | - Afternoon Visits: Chishawasha gully erosion, Demonstration Plot and compost making unit. |
| Fifth Day | - Evaluation and course resolutions |
| | - Departure of participants |

Source: Silveira House Annual Report 1981.

APPENDIX XII

SILVEIRA HOUSE

AGRICULTURAL DEVELOPMENT AWARENESS COURSE FOR KUTAMA ZVIMBA TRUST LAND FARMERS AND AGRICULTURAL STAFF MEETING

23rd-28th April 1979

MONDAY 23rd:

| | | |
|---|---|---|
| 1.30 p.m. | Bus leaves Silveira House for Musika Harare. | |
| 2.00 p.m. | Bus leaves Harare Musika for Silveira House. | |
| 2.30 p.m. | Bus arrives at Silveira House | |
| 2.45- 3.00 p.m. | Domestic arrangements Misses R. Masawi R. Samaneka | |
| 3.10- 4.25 p.m. | Welcome and Need for Development | - Mr. R.B. Mukonyora |
| 4.30- 5.30 p.m. | Agro/Ecological Regions of Zimbabwe | - Mr. A.L. Nyamuramba |
| 5.45- 6.30 p.m. | Farmer and Christian Life | - Youth Department |
| 6.30 p.m. | Supper | |
| 7.30- 9.30 p.m. | Film show: "Food and Famine and Borgo Amarzano" | |

TUESDAY 24th:

| | | |
|---|---|---|
| 7.30 a.m. | Breakfast | |
| 8.00- 9.30 a.m. | Soil Conservation (Biological and Mechanical Methods) | - Mr. R.B. Mukonyora |
| 9.35-10.45 a.m. | Fertility maintenance (Compost-making) | - Mr. L.G. Ndemera |
| 11.00-12.30 p.m. | Fertilisers and its usage | - Mr. S. Kwaramba |
| 12.30 p.m. | Lunch | |
| 1.15- 2.10 p.m. | Soil Sampling | - Mr. A.L. Nyamuramba |
| 2.15- 3.20 p.m. | Co-operative Action and Executive Functions | - Mr. A.M.Z. Majoni |
| 3.25- 4.10 p.m. | Home Produces that supply a balanced diet | - Miss S. Mugabe |
| 4.15- 5.30 p.m. | Autumn Ploughing | - Mr. L.G. Ndemera |
| 5.40- 6.30 p.m. | Pesticides | - Mr. A.L. Nyamuramba |
| 6.30 p.m. | Supper | |
| 7.15- 8.30 p.m. | Discussion Groups et al. | |
| 8.30-10.00 p.m. | Film Show: "Ini Ndiri ivhu" "Life Cycle and How to catch a Rhino" | |

WEDNESDAY 25th:

| | | |
|---|---|---|
| 7.30 a.m. | Breakfast | |
| 8.00- 9.30 a.m. | Groundnut Production | - Mr. R.B. Mukonyora |
| 9.35-10.50 a.m. | Sunflower Production | - Mr. L.G. Ndemera |
| 11.00-12.30 p.m. | Maize Production | - Mr. J. Mudyawabikwa |
| 12.30 p.m. | Lunch | |
| 1.20- 2.45 p.m. | Vegetable Production | - Mr. A.L. Nyamuramba |
| 2.45- 5.00 p.m. | Visit Chishawasha D/P, Erosion Hazards and Mr. Senda's Compost-Making | |
| 5.05- 6.30 p.m. | Discussion Groups et al. | |
| 6.30 p.m. | Supper | |
| 7.30-10.00 p.m. | Taiwan and Local Erosion Hazards, Slide Show and Film Show: "Lake Wilderness and The Peace Game" | |

continued.....

APPENDIX XII (continued)

THURSDAY 26th:

| | | | |
|---|---|---|---|
| | 7.30 a.m. | Breakfast | |
| 8.00- | 9.30 a.m. | Cattle Management | - Mr. A.L. Nyamuramba |
| 9.35- | 11.00 a.m. | Poultry Keeping | - Mr. T.W. Ngwena |
| 11.00- | 12.30 p.m. | Farm Management Records | - Mr. L.G. Ndemera |
| | 12.30 p.m. | Lunch | |
| 1.30- | 5.00 p.m. | Visit Ruwa Y.F.C./T.C. with stress on Rabbitry | - Mr. J. Masvava |
| | 5.30 p.m. | Arrival of Agricultural Field Staff | |
| | 6.30 p.m. | Supper | |
| 7.30- | 9.30 p.m. | Discussion Groups and Final Evaluation et al. | |

FRIDAY 27th:

| | | |
|---|---|---|
| | 7.30 a.m. | Breakfast |
| 8.00- | 9.00 a.m. | Farmers Course Resolutions, Pictures and departure |
| 9.30- | 10.30 a.m. | Agric/Staff Meeting minutes matters arising and Promoters Job description discussion |
| | 10.30 a.m. | Tea |
| 10.45- | 12.45 p.m. | Area Reports, Good Farming comp. Micro-Projects, balances of shellers, weighscales and S/Carts. |
| 1.00- | 2.00 p.m. | Lunch |
| 2.00- | 3.30 p.m. | PPRLF receipt books marketing to G.M.B. Empty sacks policy and ordering forms, Course Allocations, Field and Residential. |
| 3.45- | 4.45 p.m. | Any other business. |

Date of next staff meeting: 29-20/10/79

Source: Silveira House Agricultural Department

APPENDIX XIII (a)

CATHOLIC ASSOCIATION AGRICULTURAL CO-OPERATIVES -
PRE-PLANTING FIELD COURSES HELD IN 1981 FOR PPRLF.

| COURSES DATES | FARMERS' CENTRE | NO. OF PARTICIPANTS |
|---|---|---|
| 25-26 Aug. 81 | Mangwende- Govere | 120 |
| 1- 2 Sept. 81 | Chiota - Mahusekwa | 48 |
| 3- 4 Sept. 81 | Seke - Dema | 120 |
| 10-11 Sept. 81 | Mhondoro - Chivero | 98 |
| 15-16 Sept. 81 | Wedza - Mt. St. Marys | 615 |
| 17-18 Sept. 81 | Wedza - Goto | 179 |
| 22-23 Sept. 81 | Mangwende - Muchinjike | 131 |
| 24-25 Sept. 81 | Mangwende - Uzumba | 315 |
| 29-30 Sept. 81 | Mangwende - St. Pauls | 310 |
| 1- 2 Oct. 81 | Chikwakwa - Dzvete | 85 |
| 6- 7 Oct. 81 | Mtoko - All Souls | 76 |
| 8- 9 Oct. 81 | Mangwende - Maruta | 76 |
| 13-14 Oct. 81 | Chiweshe - Nyachuru | 37 |
| 15-16 Oct. 81 | Sanyati - Hozhere | 69 |
| 20-21 Oct. 81 | Mhondoro - Chirundazi | 56 |
| 22-23 Oct. 81 | Mhondoro - Watyoka | 47 |
| 27-28 Oct. 81 | Mhondoro - Nyamweda | 87 |
| 29-30 Oct. 81 | Ngezi - St. Michaels | 87 |
| Eighteen Field Courses catering for | | 2,556 |

Source: Silveira House Annual Report, 1981

APPENDIX XIII (b)

CATHOLIC ASSOCIATION AGRICULTURAL CO-OPERATIVES -
PRE-PLANTING FIELD COURSES HELD IN 1981 FOR AFC.

| COURSES DATES | FARMERS' CENTRE | NO. OF PARTICIPANTS |
|---|---|---|
| 1 June 81 | Mangwende - Nheweyembwa | 230 |
| 1 June 81 | Mangwende - Mukarakate | 321 |
| 2 June 81 | Mangwende - Muchagonei | 431 |
| 3 June 81 | Rusike - Maize Shed | 131 |
| 4 June 81 | Chinamhora - Show Hall | 150 |
| 5 June 81 | Msana - Svisva | 258 |
| 8 June 81 | Kutama - Day School | 100 |
| 10 June 81 | Wedza - Mt. St. Marys | 235 |
| 18 June 81 | Ngezi - St. Michaels | 79 |
| 18 June 81 | Ngezi - Ngezi River | 310 |
| 22 June 81 | Mhondoro - Rukuma | 250 |
| 22 June 81 | Nyamweda - St. Martins | 65 |
| Fourteen Seminars catering for | | 2,791 |

Source: Silveira House Annual Report 1981.

APPENDIX XIV(a): PRE-MARKETING FIELD COURSES HELD IN 1980/81

GOOD FARMING COMPETITION RESULTS FOR 1981 SEASON

| AREA | NAME OF FARMER | GROUP | POSITION | MARKS |
|---|---|---|---|---|
| 1. Msana | Mr A Mapesa | Svisva A | 1 | 80% |
| | Mr M Mabeteya | Svisva A | 2 | 71% |
| | Mr E Shanda | Svisva C | 3 | 69% |
| | Mrs W Tandi | Svisva C | 4 | 68% |
| 2. Rusike | Mr S Songore | Gororo Shangure | 1 | 86% |
| | Mr Dongo | Shangure | 2 | 72% |
| | Mr T Chasi | Chasi | 3 | 71% |
| | Mrs Dzumbunu | Nora | 4 | 64% |
| 3. Chinyika | Mrs V Hanyani | Yafero | 1 | 79% |
| | Mr Mahaja | Mahaja | 2 | 72% |
| | Mrs Mhembere | Yafero | 3 | 70% |
| | Mr T Makii | Yafero | 4 | 63% |
| 4. Nyamweda | Mrs J Marino | Shingirayi | 1 | 73% |
| | Mrs K Mangwende | Shingirayi | 2 | 70% |
| | Mr K Bvumbe | Shingirayi | 3 | 66% |
| | Mr F Nemberi | Kupfumaishungu | 4 | 61% |
| 5. Mrewa North (Muchinjike) | Mr M Matidenha | Matidenha | 1 | 82% |
| | Mr K Choruwa | Chinyani | 2 | 79% |
| | Mr S Chitaukire | Rupange | 3 | 77% |
| | Mrs Mwenga | Mwenga | 4 | 71% |
| 6. Mrewa South (Beta) | Mr W Masamba | Muzembe | 1 | 87% |
| | Mr W Nyandoro | Munamba | 2 | 83% |
| | Mr S Gwara | Muzembe | 3 | 80% |
| | Mr T Ghingosho | Chiguri II | 4 | 78% |
| 7. Mrewa East (Rota and Mukarakate) | Mr P Chibanda | Goto | 1 | 90% |
| | Mr R Jokomo | Maponongwe | 2 | 81% |
| | Mr C Mutirwara | Chaze I | 3 | 79% |
| | Mr T Chetukudza | Marumisa | 4 | 74% |
| 8. Chinamhora | Mrs A Mugwagwa | | 1 | 81% |
| | Mrs Esther Mazanhi | Mazanhi | 2 | 74% |
| | Mr B Chitate | | 3 | 73% |
| | Mr Alis Menzou | Gwembein | 4 | 70% |
| 9. Zvimba | Mr R Mutetwa | Hwayera | 1 | 80% |
| | Mr Muketiwa | Gatsi | 2 | 76% |
| | Mr John Gumbo | Kutama | 3 | 71% |
| | Mr Britto Gumbo | Mahkeka | 4 | 68% |
| 10. Ngezi | Mrs Mashingaidze | Nehanda I | 1 | 79% |
| | Mrs Mukakati | Manhize | 2 | 76% |
| | Mr T Mahachi | Mafindifindi | 3 | 75% |
| | Mr M Bunhu | Rujeko | 4 | 73% |
| 11. Chikwaka | Mr M Masawi | Dzviti | 1 | 81% |
| | Mr H Tunha | Duwiwa | 2 | 70% |
| | Mrs M Simon | Chihuri | 3 | 67% |
| | Mrs C Maseko | Tambanevhu | 4 | 65% |
| 12. Chishawasha | Mr K Nyamayaro | Nyamayaro | 1 | 78% |
| | Mrs R Chakanetsa | Nyamayaro | 2 | 75% |
| | Mrs L Muringai | Loyola | 3 | 74% |
| | Mrs John Muza | Manresa | 4 | 72% |

continued.....

APPENDIX XIV(a) (continued)

| | | | | |
|---|---|---|---|---|
| 13. Mondoro Central | Mr T Chiboziwa | Vimbainashe | 1 | 89% |
| | T Chirenji | Nzarahutoïda | 2 | 85% |
| | G Denhere | Rwizi | 3 | 82% |
| | M Dzvanyama | Rwizi | 4 | 79% |

APPENDIX XIV(b): PRE-MARKETING FIELD COURSES HELD IN 1980/81.

| AREA | DATE AT FIELD DAY | OWNER OF FIELD | GROUP | ATTENDANCES |
|---|---|---|---|---|
| Chinyika | 6. 4.81 | Mrs V Hunyani | Yafero | 121 |
| Msana | 7. 4.81 | Mr A Mapesa | Svisva | 238 |
| Chinamhora | 8. 4.81 | Mrs A Mugwagwa | St. Henry's | 436 |
| Rusike | 9. 4.81 | Mr S S Ongore | Shangure | 312 |
| Chikwakwa | 10. 4.81 | Mr M Masawi | Masawi | 197 |
| Mhondoro Central | | | | |
| Rukuma | 14. 4.81 | Mr T Chiboziwa | Vimbainashe | 1,100 |
| Ngezi | 15. 4.81 | Mrs Mashingaidze | Nehanda | 211 |
| Zvimba | 21. 4.81 | Mr Mutetwa | Hwaera | 238 |
| Mangwende | | | | |
| " North | 22. 4.81 | Mr Matidenha | Matidenha | 510 |
| " South | 23. 4.81 | Mr Masamba | Muzenda | 715 |
| Nyamweda | 24. 4.81 | Mr Marimo | Shingirai | 84 |
| Chishawasha | 27. 4.81 | Mr K Nyamayaro | Nyamayaro | 125 |
| Mangwende East | 8. 5.81 | Mr P Chibanda | Goto | 1,113 |
| Thirteen Field Days catering for | | | | 5,400 |

Source: Silveira House Annual Report 1981.

APPENDIX XV: GRAIN MARKETING BOARD RECOMMENDED NET MASS FOR CONTROLLED PRODUCTS

| CROPS | NET MASS/Kg. |
|---|---|
| Maize | 93 |
| Shelled groundnuts | 84 |
| Soya Beans | 93 |
| Unshelled groundnuts | 40 |
| Wheat | 93 |
| Sorghum | 93 |

Source: Research Information, 1981.

APPENDIX XVI: CATHOLIC ASSOCIATION AGRICULTURAL CO-OPERATIVES CALENDAR OF FARMING ACTIVITIES

| MONTH | ACTIVITIES |
|---|---|
| October 1980 | Fertilizer and seed orders, land preparation cleaning contours, application of compost initial fertilizer, planting of maize and cotton (pending early rains). |
| November 1980 | Planting of beans, nuts, weed control first cultivation. |
| December 1980 | Second cultivation, top dressing fertilizer, compost-making, insect pest control (stalk borers). |
| January 1981 | Third cultivation, compost-making, insect pest control. |
| February 1981 | Land judging, for good farming competitions start. Central Executive Meetings, insect pest control, contour cleaning, compost-making. |
| March 1981 | Good farming competitions field days, compost-making. |
| April 1981 | Field Days, harvesting nuts, sunflowers, beans. |
| May 1981 | Stocking maize, Autumn Ploughing, field days, compost-making, Early Delivery Rebate arrangements for fertilizer orders. |
| June 1981 | Winter Ploughing, harvesting all crops, drying of maize on rocks etc., shelling maize, fertilizers orders Early Delivery Rebate. |
| July 1981 | Shelling, grading, bagging, weighing of crops transportation to Grain Marketing Board and marketing of grain. |
| August 1981 | Marketing continues, fertilizer orders seed and insecticide orders commence for next season inputs. |
| September 1981 | Marketing continues and final order of inputs for next season. |

Source: Silveira House Annual Report, 1981

APPENDIX XVII.

THE NAME CHANGES AS AT JANUARY, 1983

| OLD NAME | NEW NAME |
|---|---|
| Balla Balla | Mbalabala |
| Belingwe | Mberengwa |
| Chipinga | Chipinge |
| Dett | Dete |
| Enkeldoorn | Chivhu |
| Essexvale | Esigodini |
| Fort Victoria | Masvingo |
| Gatooma | Kadoma |
| Gwelo | Gweru |
| Hartley | Chegutu |
| Inyazura | Nyazura |
| Mangula | Mhangura |
| Marandellas | Marondera |
| Mashaba | Mashava |
| Melsetter | Chimanimani |
| Mrewa | Murewa |
| Mtoko | Mutoko |
| Mtorashanga | Mutorashanga |
| Nkai | Nkayi |
| Nuanetsi | Mwenezi |
| Que Que | Kwekwe |
| Salisbury | Harare |
| Selukwe | Shurugwi |
| Sinoia | Chinhoyi |
| Shabani | Zvishavane |
| Sipolilo | Chipuriro |
| Somabula | Somabhula |
| Tjoiotjo | Tsholotsho |
| Umtali | Mutare |
| Umvuma | Mvuma |
| Vila Salazar | Sango |
| Wankie | Hwange |

# BIBLIOGRAPHY

## BOOKS


| Author(s) | Date | Title |
|---|---|---|
| Abler, R., Adams, J. S. and Gould, P. | 1972 | Spatial Organisation. London. |
| Abarbanel, J. S. | 1974 | The Co-operative Farmer and the Welfare State. Manchester. |
| Adams, M. E. | 1982 | Agricultural Extension in Developing Countries. Harlow (Essex). |
| Agrawal, G. D. and Bansil, P. C. | 1971 | Economic Theory as Applied to Agriculture New Delhi. |
| Ahmad, E. | 1952 | Rural Settlement Types in Uttar Pradesh, in Annals of The Association of American Geographers, 42(3). |
| Allaby, M. and Tudge, C. | 1977 | Home Farm - Complete Food Self-Sufficiency London. |
| Allan, W. | 1965 | The African Husbandman. London. |
| Andreae, B. | 1972 | The Economics of Tropical Agriculture. Glasgow. |
| Andreou, P. (Ed.) | 1977 | Co-operative Institutions and Economic Development in Developed and Developing Nations. Dar Es Salaam. |
| Anschel, K. P., Brannon, R. H. and Smith, E. D. (Eds.) | 1969 | Agricultural Co-operatives and Markets in Developing Countries. London. |
| Anthonio, Q. B. D. | 1979 | General Agriculture for West Africa, London. |
| Anthony, K. R. M. et al. | 1979 | Agricultural Change in Tropical Africa. London. |
| Arnon, I. | 1981 | Modernization of Agriculture in Developing Countries. New York. |
| Arrighi, G. and Saul, J. S. | 1973 | Essays on the Political Economy of Africa. London. |
| Astor, V. and Rowntree, B. S. | 1945 | Mixed Farming and Muddled Thinking. London. |
| Axinn, G. H. and Thorat, S. T. | 1972 | Modernising Agriculture: A Comparative Study of Agricultural Extension Education Systems. New York. |


continued.....

BIBLIOGRAPHY (continued)


| | | |
|---|---|---|
| Aziz, S. | 1978 | Rural Development- Learning from China Hong Kong. |
| Bager, T. | 1980 | Marketing Co-operatives and Peasants in Kenya. Copenhagen. |
| Bahr, E. | 1976 | The New Economic Detente, Bonn. |
| Balogh, T. | 1966 | The Economics of Poverty. London. |
| Baran, P. A. | 1957 | The Political Economy of Growth. London. |
| Barker, J. W. | 1981 | Agricultural Marketing. Oxford. |
| Bedi, R. D. | 1958 | Theory, History and Practice of Co-operation. Meerut City (India). |
| Beguin, H. | 1964 | Modeles geographiques pour l'espace rural Africain (Geographical Models for African rural space). Brussels. |
| Behrman, J. R. | 1969 | Supply responses and the modernisation of peasant agriculture in Wharton, C. R. Jr. (Ed.) Subsistence Agriculture in Economic Development. Chicago. |
| Berki, R. N. | 1975 | Socialism. London. |
| Bhuleshkar, A. V. | 1973 | Bargaining Co-operatives. New Delhi |
| Bird, R. M. | 1974 | Taxing Agricultural Land in Developing Countries. Massachusetts. |
| Blake, R. | 1977 | A History of Rhodesia. London. |
| Blase, M. G. (Ed.). | 1971 | Institutions in Agricultural Development. Iowa. |
| Blij, H. J. de | 1964 | A Geography of Subsaharan Africa. Chicago. |
| Bock, P. K. (Ed.). | 1969 | Peasants in the Modern World. New Mexico. |
| Boeke, J. H. | 1953 | Economics and Economic Policy of Dual Societies as Exemplied by Indonesia. New York. |
| Boner, A. | 1970 | British Co-operation. Manchester. |
| Boserup, E. | 1965 | The Conditions of Agricultural Growth. London. |
| Bottrall, A. et al. (Eds.) | 1979 | Institutions, Management and Agricultural Development. London. |


continued.....

BIBLIOGRAPHY (continued)


| | | |
|---|---|---|
| Bowden, L. W. | 1965 | The Diffusion of the Decision to Irrigate. Chicago. |
| Bradford, M. G. and Kent, W. A. | 1977 | Human Geography - Theories and their Application. Oxford. |
| Brandt, W. et al. | 1981 | Handbook of World Development. Harlow (Essex). |
| Brandt, W. et al. | 1980 | North - South: A programme for Survival. London. |
| Bratton, M. | 1978 | Beyond Community Development: The political economy of rural administration in Zimbabwe. London. |
| Broek, J. O. M. and Webb, J. W. | 1968 | A Geography of Mankind. London. |
| Bunge, W. | 1966 | Theoretical Geography. Lund. |
| Campbell, W. K. H. | 1951 | Practical Co-operation in Asia and Africa. Cambridge. |
| Capek, M. | 1966 | The Czechoslovak Co-operator, No. 2/66. Prague. |
| Carter, H. C. | 1963 | Representative Farmers - Guides for Decision Making in Journal of Farm Economics, 45(5). |
| Carver, T. N. | 1911 | Principles of Rural Economics. London. |
| Chaudhri, D. P. | 1979 | Education, Innovations and Agricultural Development. London. |
| Chisholm, M. | 1975 | Human Geography: Evolution or Revolution? Harmondsworth. |
| Chisholm, M. | 1962 | Rural Settlement and Land Use. London. |
| Chorley, R. J. and Haggett, P. (Eds.). | 1967 | Integrated Models in Geography. London. |
| Chorley, R. J. and Haggett, P. (Eds.). | 1967 | Socio-economic Models in Geography. London. |
| Cipolla, C. M. | 1962 | The Economic History of World Population. Aylesbury. |
| Clark, C. and Haswell, M. | 1964 | The Economics of Subsistence Agriculture. London. |


continued.....

BIBLIOGRAPHY (continued)


| | | |
|---|---|---|
| Clark, E. | 1952 | Farmer Co-operatives and Economic Welfare in Journal of Farm Economics, Vol. 34. |
| Clarke, J. I. (Ed.). | 1975 | An Advanced Geography of Africa. Amersham (Bucks.). |
| Clayton, E. S. | 1964 | Agrarian Development in Peasant Economies. London. |
| Cohen, S. I. | 1978 | Agrarian Structures and Agrarian Reform. Leiden. |
| Cole, J. P. and King, C. A. M. | 1968 | Quantitative Geography. London. |
| Collins, J. et al. | 1979 | Food First Resource Guide. San Francisco. |
| Coombs, P. H. and Ahmed, M. | 1974 | Attaching Rural Poverty: How Non-formal Education can help. London. |
| Courtenay, P. P. | 1965 | Plantation Agriculture. London. |
| Danckwerts, J. P. | 1970 | Technology and Economic Development of African Agriculture in Rhodesia in The Rhodesia Journal of Economics, Vol. 4, No. 4. |
| Daugherty, R. | 1974 | Science in Geography 2: Data Collection. London. |
| Davidovic, G. | 1977 | The Character of the Co-operative Enterprise in Andreou, P. (Ed.) Co-operative Institutions and Economic Development in Developed and Developing Nations. Dar es Salaam. |
| Davidson, B. R. and Martin, B. R. | 1968 | Experimental Research and Farm Production. Perth. |
| Davies, R. | 1978 | The Informal Sector: A Solution of Unemployment? London. |
| Davis, P. | 1974 | Science in Geography 3: Data Description and Presentation. Oxford. |
| Dell' Amore, G.(Ed.) | 1975 | Agricultural Credit for Development. Rome. |
| Digby, M. | 1970 | Agricultural Co-operation in the Commonwealth. Oxford. |
| Digby, M. | 1963 | Co-operative Land Use: The Challenge to Traditional Co-operation. Oxford. |


continued.....

BIBLIOGRAPHY (continued)


| | | |
|---|---|---|
| Dixon, C. and Leach, B. | 1978 | Sampling Methods for Geographical Research. Norwich. |
| Dobb, M. | 1963 | Economic Growth and Underdeveloped Countries. London. |
| Dodge, D. J. | 1977 | Agricultural Policy and Performance in Zambia. Berkeley (California). |
| Donaldson, P. | 1973 | Economics of the Real World. Aylesbury (Bucks.). |
| Donaldson, P. | 1971 | Worlds Apart - The Economic Gulf Between Nations. London. |
| Draheim, G. | 1952 | The Co-operative Society as a Form of Enterprise. Goettingen. |
| Emelianoff, I. V. | 1942 | Economic Theory of Co-operation. Washington. |
| Engelmann, K. and Frederick, A. P. | 1968 | Building Co-operative Movements in Developing Countries: The Sociological and Psychological Aspects. New York. |
| Fielding, G. J. | 1974 | Geography as Social Science. London. |
| Firth, R. | 1951 | Elements of Social Organisation. London. |
| Fitzgerald, B. P. | 1974 | Science in Geography 1: Developments in geographical methods. London. |
| F.A.O. (United Nations) | 1978 | Experiences and Models of Co-operatives and Other Rural Organisations Engaged in Agricultural Production. Rome. |
| Fordham, P. | 1974 | The Geography of African Affairs. Harmondsworth. |
| Found, W. C. | 1971 | A Theoretical Approach to Rural Land Use Patterns. London. |
| Francisco, R. A. et al. (Eds.) | 1978 | The Political Economy of Collectivised Agriculture. New York. |
| Fuller, A. M. and Mage, J. A. (Eds.). | 1975 | Part-time Farming: Problem or Resource in Rural Development. Norwich. |
| Galeski, B. | 1977 | The Models of Collective Farming in Dorner, P. (Ed.) Co-operative and Commune. Wisconsin. |


continued.....

BIBLIOGRAPHY (continued)


| | | |
|---|---|---|
| Gregor, H. F. | 1970 | Geography of Africulture: Themes in Research. Englewood Cliffs (New Jersey). |
| Gregory, D. | 1978 | Ideology, Science and Human Geography. London. |
| Gretton, R. H. | 1969 | Agricultural Co-operatives. Stiftung. |
| Grigg, D. | 1970 | The Harsh Lands - A Study in Agricultural Development. London. |
| Griffiths, J. F. | 1972 | Climates of Africa. Amsterdam. |
| Grosfeld, J. | 1978 | Functions and Types of Agricultural Co-operatives in Latin America, in Webster, F. H. (Ed.) Year Book of Agricultural Co-operation. Oxford. |
| Grove, A. T. | 1967 | Africa South of the Sahara. Oxford. |
| Hagerstraand, T. | 1953 | Innovation Diffusion as a Spatial Process. Lund. |
| Haggett, P. | 1965 | Locational Analysis in Human Geography. London. |
| Haggett, P., Cliff, A. D. and Frey, A. | 1977 | Locational Methods. London. |
| Hammond, R. and McCullagh, P. S. | 1978 | Quantitative Techniques in Geography. Oxford. |
| Hance, W. A. | 1977 | Black Africa Develops. Waltham. |
| Hance, W. A. | 1964 | The Geography of Modern Africa. London. |
| Hansen, M. H., Hutwitz, W. N. and Madow, W. G. | 1953 | Sample Survey Methods and Theory, Vol. 1. New York. |
| Harrison, P. | 1979 | Inside the Third World. Harmondsworth (Middlesex). |
| Harrison, P. | 1980 | The Third World Tomorrow. Harmondsworth. (Middlesex). |
| Harvey, D. | 1969 | Explanation in Geography. London. |
| Harvey, D. W. | 1963 | Locational change in the Kentish hop industry and the analysis of land-use patterns in Transactions of Institute of British Geographers, 33. London. |


continued.....

BIBLIOGRAPHY (continued)


| | | |
|---|---|---|
| Harvey, D. W. | 1966 | Theoretical Concepts and the Analysis of agricultural land-use patterns in geography in Annals of the Association of American Geographers, 56. |
| Harvey, M. E. and Holly, B. P. (Eds.) | 1981 | Themes in Geographic Thought. London. |
| Hayami, Y. and Ruttan, V. W. | 1971 | Agricultural Development: An International Perspective. London. |
| Hayter, T. | 1981 | The Creation of World Poverty. London. |
| Heady, E. O. and Haroldsen, E. O. | 1965 | Roots of the Farm Problem. Iowa. |
| Helm, F. C. | 1968 | The Economics of Co-operative Enterprise. London. |
| Helmberger, P. G. and Hoos, S. | 1965 | Co-operative Bargaining in Agriculture, in Bulletin of University of California. Berkeley. |
| Helmberger, P. G. and Hoos, S. S. | 1964 | Co-operative Enterprise and Organisation Theory in Journal of Farm Economics, vol. 46. |
| Henshall, J. D. | 1967 | Models of Agricultural Activity in Chorley, R. J. et al. (Eds.). Socio-economic Models in Geography. Cambridge. |
| Henshall, J. D. and King, L. J. | 1966 | Some Structural Characteristics of Peasant Agriculture in Barbados, in Economic Geography, 42(1). |
| Hodder, B. W. and Harris, D. R. (Eds.) | 1967 | Africa in Transition. London. |
| Hodder, B. W. | 1978 | Africa Today. London. |
| Hodder, B. W. | 1973 | Economic Development in the Tropics. London. |
| Hodge, I. and Whitby, M. | 1981 | Rural Employment - Trends, Options, Choices. London. |
| Holt-Jensen, A. | 1980 | Geography: Its History and Concepts. London. |
| Hopper, W. D. | 1965 | Allocation Efficiency in a Traditional Indian Agriculture, in Journal of Farm Economics, 47. |


continued.....

BIBLIOGRAPHY (continued)


| | | |
|---|---|---|
| Horowitz, I. L. | 1966 | Three Worlds of Development. New York. |
| Huggett, R. and Meyer, I. | 1980 | Geography: Theory in Practice Agriculture Book Two. London. |
| Hughes, A. J. B. | 1974 | Development in Rhodesian Tribal Areas. Salisbury. |
| Hunter, G. (Ed.) | 1978 | Agricultural Development and the Rural Poor. London. |
| Hunter, G., Bunting, A. H. and Bottrall, A. (Eds.) | 1976 | Policy and Practice in Rural Development. London. |
| Husain, M. | 1979 | Agricultural Geography. New Delhi. |
| Hutchinson, J. B. | 1972 | Farming and Food Supply. Cambridge. |
| Hyden, G. | 1976 | The Politics of Co-operatives in Tanzania in Mutaha, A. Z. et al. (Eds.) Co-operatives in Tanzania. Dar es Salaam. |
| International Co-operative Alliance | 1967 | Agricultural Co-operative Credit in South-East Asia. London. |
| International Co-operative Alliance | 1977 | Co-operatives and the Poor. London. |
| International Co-operative Alliance | 1978 | Co-operatives and the State. Copenhagen. |
| International Co-operative Alliance | 1972 | Co-operative Management for the 1970s. London. |
| International Co-operative Alliance | 1967 | Co-operative Principles. London. |
| International Co-operative Alliance | 1980 | Review of International Co-operation. London. |
| International Co-operative Alliance | 1972 | The Role of Agricultural Co-operatives in Social and Economic Development Rome. |
| International Co-operative Alliance | 1964 | The Role of Co-operation in Social and Economic Development. London. |
| International Co-operative Alliance | 1980 | Twenty-seventh Congress Reports. Moscow. |


continued.....

BIBLIOGRAPHY (continued)


| | | |
|---|---|---|
| Isard, W. et al. | 1969 | General Theory - Social, Political, Economic, and Regional. London. |
| Islam, N. (Ed.) | 1974 | Agricultural Policy in Developing Countries. London. |
| Jackson, I. J. | 1977 | Climate, Water and Agriculture in the Tropics. London. |
| Jalee, P. | 1969 | The Third World in the World Economy. London. |
| Jolly, R. et al.(Eds.) | 1973 | Third World Employment Problems and Strategy. London. |
| Jones, E. L. and Woolf, S. J. (Eds.) | 1969 | Agrarian Change and Economic Development. London. |
| Jones, E. L. | 1974 | Agriculture and the Industrial Revolution. Oxford. |
| Karaska, G. J. and Bramhall, D. F. (Eds.) | 1969 | Locational Analysis for Manufacturing. Massachusetts. |
| Kay, G. | 1975 | Development and Under-development: A Marxist Analysis. London. |
| Kay, G. | 1969 | Agricultural Progress in Zambia, in Thomas, M. F. and Whittington, G. W. (Eds.) Environment and Land-use in Africa. London. |
| Kay, G. | 1970 | Rhodesia: A Human Geography. London. |
| Kish, L. | 1965 | Survey Sampling. New York. |
| Konopnicki, M. and Vandewalle, G. (Eds.) | 1976 | Co-operation as an Instrument for Rural Development. London. |
| Lambert, P. (Ed.) | 1968 | Annals of Public and Co-operative Economy, Vol. 39, No. 2. |
| Larson, A. | 1969 | Universalities of Co-operation in Aschel, K. R. et al. (Eds.) Agricultural Co-operatives and Markets in Developing Countries. London. |
| Leagans, J. P. and Loomis, C. P. (Eds.) | 1971 | Behavioural Change in Agriculture - Concepts and Strategies for Influencing Transition. London. |


continued.....

BIBLIOGRAPHY (continued)


| | | |
|---|---|---|
| Levi, J. and Havinden, M. | 1982 | Economics of African Agriculture. Harlow (Essex). |
| Lombard, C. S. and Tweedie, A. H. C. | 1972 | Agriculture in Zambia since Independence. Lusaka. |
| Losch, A. | 1954 | The Economics of Location. New Haven. |
| Lutfiyya, A. M. | 1966 | Baytin, a Jordanian Village: a Study of Social Institutions and Social Change in a Folk Community. The Hague. |
| Lystad, R. A. (Ed.) | 1965 | The African World. London. |
| Mabogunje, A. L. | 1980 | The Development Process - A Spacial Perspective. London. |
| McCullagh, P. | 1974 | Science in Geography 4: Data Use and Interpretation. London. |
| McGrath, M. J. (Ed.) | 1969 | Guidelines for Co-operatives in Developing Economies. Wisconsin. |
| McPherson, W. W. (Ed.) | 1968 | Economic Development of Tropical Agriculture. Gainsville. |
| Makings, S. M. | 1967 | Agricultural Problems of Developing Countries in Africa. Lusaka. |
| Mann, H. H. | 1967 | The Social Framework of Agriculture. London. |
| Manshard, W. | 1968 | Tropical Agriculture. London. |
| Martin, M. P. and O'Meara, P. (Eds.) | 1977 | Africa. London. |
| Masefield, G. B. | 1972 | A History of the Colonial Agricultural Service. London. |
| Massell, B. F. and Johnson, R. W. M. | 1968 | Economics of Small-holder Farming in Rhodesia. Stanford (California). |
| Massell, B. F. | 1967 | Farm Management in Peasant Agriculture. Ithaca. |
| Maxwell, A. E. | 1972 | Basic Statistics. London. |
| Meadows, D. H. et al. | 1972 | The Limits to Growth. London. |
| Meliczek, H. (Ed.) | 1975 | Land Reform, Land Settlement and Co-operatives. Rome. |


continued.....

BIBLIOGRAPHY (continued)


| | | |
|---|---|---|
| Mellor, J. W. | 1969 | The subsistence farming in traditional economics in Wharton, C. R.,Jr. (Ed.) Subsistence Agriculture in Economic Development. Chicago. |
| Metcalfe, C. B. | 1971 | A Guide to Farming in Rhodesia. Salisbury. |
| Moorson, R. | 1982 | Transforming a Wasteland. London. |
| Morawetz, D. | 1977 | Twenty-Five years of Economic Development - 1950-1975. Baltimore. |
| Morgan, W. B. and Munton, R. J. C. | 1971 | Agricultural Geography. London. |
| Morgan, W. B. | 1978 | Agriculture in the Third World. London. |
| Morozov, V. | 1977 | Soviet Agriculture. Moscow. |
| Morrill, R. L. | 1965 | The Negro ghetto - problems and alternatives, in Geographical Review, Vol. 55. |
| Morris-Jones, W. H. and Austin, D. (Eds.) | 1980 | From Rhodesia to Zimbabwe: Behind and Beyond Lancaster House. London. |
| Moseman, A. H. (Ed.) | 1964 | Agricultural Sciences for the Developing Nations. Washington. |
| Moser, C. A. and Kalton, G. | 1958 | Survey Methods in Social Investigation. London. |
| Mosher, A. T. | 1971 | To Create a Modern Agriculture. New York. |
| Moss, R. P. and Morgan, W. B. | 1970 | Soils, plants and farmers in West Africa in Garlick, J. P. (Ed.) Human Ecology in the Tropics. Oxford. |
| Mountjoy, A. B. (Ed.) | 1978 | The Third World. London. |
| Murray, J. et al. | 1981 | Global Strategy for Growth. London. |
| Mutaha, A. Z. et al. | 1976 | Co-operatives in Tanzania - Problems of Organisation. Dar es Salaam. |
| Ndlela, D. B. | 1981 | Dualism in the Rhodesian Colonial Economy. Lund. |
| Nesman, E. G. | 1981 | Peasant Mobilization and Rural Development. London. |


continued.....

BIBLIOGRAPHY (continued)


| | | |
|---|---|---|
| Neumann, J. von and Mogerstern, O. | 1944 | Theory of Games and Economic Behaviour. Princeton. |
| Newbury, P. A. R. | 1980 | A Geography of Agriculture. London. |
| Nyerere, J. K. | 1974 | Man and Development. London. |
| Nyerere, J. K. | 1968 | Ujamaa - Essays on Socialism. London. |
| O'Hagan, J. P. (Ed.) | 1978 | Growth and Adjustment in National Agricultures. London. |
| Overseas Development Institute | 1977 | Extension Planning and the Poor. London. |
| Overseas Development Institute | 1979 | Institutions, Management and Agricultural Development. London. |
| Overseas Development Institute | 1976 | Stimulating Local Development. London. |
| Padilla, E. | 1960 | Contemporary Social-Rural Types in the Caribbean Region, in Rubin, V. (Ed.) Caribbean Studies: A Symposium. Seattle. |
| Palmer, R. | 1977 | Land and Racial Domination in Rhodesia. London. |
| Palmer, R. and Parsons, N. (Eds.) | 1977 | The Roots of Rural Poverty in Central and Southern Africa. London. |
| Passmore, G. C. | 1972 | The National Policy of Community Development in Rhodesia. Salisbury. |
| Peil, M., Mitchell, K. and Rimmer, D. | 1982 | Social Science Research Methods. London. |
| Phillips, J. et al. | 1963 | Southern Rhodesia - Advisory Committee on the Development of the Economic Resources of Southern Rhodesia with special reference to the Role of African Agriculture. Salisbury. |
| Pirie, N. W. | 1969 | Food Resources. Aylesbury. |
| Prothero, R. M. (Ed.) | 1969 | A Geography of Africa. London. |
| Prothero, R. M. | 1957 | Land Use at Soba, Zaria Province, Northern Nigeria in Economic Geography, 33. |
| Puri, S. S. | 1979 | Ends and Means of Co-operative Development. New Delhi. |


continued.....

BIBLIOGRAPHY (continued)


| | | |
|---|---|---|
| Quick, S. A. | 1978 | Humanism or Technocracy? Zambia's Co-operatives, 1965 to 1972. Massachusetts. |
| Reddy, A. K. N. | 1975 | Technology, Development and the Environment. Nairobi. |
| Redfield, R. | 1956 | Peasant Society and Culture. Chicago. |
| Research Centre for International Agrarian Development | 1972 | Agrarian Structures in a Changing World. Breitenbach. |
| Riddell, R. C. | 1978 | The Land Problem in Rhodesia. Gwelo. |
| Robotka, F. | 1947 | A Theory of Co-operation in Journal of Farm Economics, Volume 29. |
| Rodney, W. | 1972 | How Europe Underdeveloped Africa. London. |
| Rogers, E. M. | 1962 | Diffusion of Innovations. New York. |
| Roxborough, I. | 1979 | Theories of Underdevelopment. London. |
| Roy, E. P. | 1964 | Co-operative Today and Tomorrow. Danville (Illinois). |
| Ruthenberg, H. | 1971 | Farming Systems in the Tropics. London. |
| Sargent, M. | 1982 | Agricultural Co-operation. Guildford. |
| Sargent, M. J. and Doherty, N. M. | 1977 | Agricultural Co-operation in Practice. Bath. |
| Sauer, C. O. | 1969 | Agricultural Origins and Dispersals: The Domestication of Animals and Food Stuffs. Cambridge (Massachusetts). |
| Schultz, T. W. | 1953 | The Economic Organisation of Agriculture. New York. |
| Schultz, T. W. | 1964 | Transforming Traditional Agriculture. New York. |
| Schumacher, E. F. | 1973 | Small is Beautiful. Glasgow. |
| Shanin, T. (Ed.) | 1971 | Peasants and Peasant Societies. Aylesbury (Bucks.) |
| Shirlaw, D. W. G. | 1971 | An Agricultural Geography of Great Britain. Oxford. |
| Simson, H. | 1979 | Zimbabwe - A Country Study. Uppsala (Sweden). |


continued.....

BIBLIOGRAPHY (continued)


| | | |
|---|---|---|
| Singh, M. | 1970 | Co-operatives in Asia. New York. |
| Smith, G. A. | 1972 | Agricultural Development in Rhodesian Tribal Trust Lands, Vol. 1. Salisbury. |
| Southworth, H. M. and Johnson, B. F. (Eds.) | 1967 | Agricultural Development and Economic Growth. New York. |
| Spedding, C. R. W. | 1979 | An Introduction to Agricultural Systems. London. |
| Stabler, M. J. | 1975 | Agricultural Economics and Rural Land-use. London. |
| Stamp, L. D. | 1965 | Commodities and World Trade. London. |
| Stanford, Q. H. and Moran, W. | 1969 | Geography: A Study of Its Elements. Toronto. |
| Stor, W. B. and Taylor, D. R. F. (Eds.) | 1981 | Development from Above or Below? Chichester. |
| Stoneman, C. (Ed.) | 1981 | Zimbabwe's Inheritance. London. |
| Symons, L. J. | 1967 | Agricultural Geography. London. |
| Tarrant, J. R. | 1974 | Agricultural Geography. Newton Abbot (Devon). |
| Thomas, M. F. and Whittington, G. W. (Eds.) | 1969 | Environment and Land Use in Africa. London. |
| Tickner, V. | 1979 | From Rhodesia to Zimbabwe: the Food Problem. London. |
| Todaro, M. P. | 1981 | Economic Development in the Third World. London. |
| Tudge, C. | 1979 | The Famine Business. Harmondsworth (Middlesex). |
| United Nations Research Institute | 1975 | Rural Co-operatives as Agents of Change. New York. |
| United Nations Research Institute | 1954 | Rural Progress through Co-operatives: The place of co-operative associations in agricultural developments. New York. |
| Valko, L. | 1961 | International Principles of Co-operative Legislation in International Conference of Co-operative Science. Goettingen. |


continued.....

BIBLIOGRAPHY (continued)


| | | |
|---|---|---|
| Vavilov, N. I. | 1949 | The Origin, Variation, Immunity and Breeding of Cultivated Plants. Massachusetts. |
| Waibel, L. | 1958 | 'Capitulos de geografia tropical e do Brasil'. Rio de Janeiro. |
| Warriner, D. | 1964 | Economics of Peasant Farming. London. |
| Webster, C. C. and Wilson, P. N. | 1966 | Agriculture in the Tropics. London. |
| Webster, F. H. (Ed.) | 1979 | Year Book of Agricultural Co-operation. London. |
| Weinrich, A. K. H. | 1975 | African Farmers in Rhodesia. London. |
| Weitz, R. | 1971 | From Peasant to Farmer. New York. |
| Wharton, C. R.,Jr. (Ed.) | 1970 | Subsistence Agriculture and Economic Development. Chicago. |
| Whittenmore, C. | 1981 | Land for People: Land Tenure and the very poor, Oxford. |
| Whyte, A. | 1977 | Guidelines for Field Studies in Environmental Perception. Paris. |
| Wilde, J. C. de et al. | 1967 | Experiences with Agricultural Development in Tropical Africa, Vol. 1. Baltimore. |
| Wolf, E. R. | 1966 | Peasants. New Jersey. |
| Wong, J. (Ed.) | 1979 | Group Farming in Asia: Experiences and Potentials. Singapore. |
| Woodcock, R. G. and Bailey, M. J. | 1978 | Quantitative Geography. Plymouth. |
| Wormell, P. | 1978 | Anatomy of Agriculture. London. |
| Wrigley, G. | 1969 | Tropical Agriculture. London. |
| Yates, F. | 1960 | Sampling Methods for Censuses and Surveys. London. |
| Yudelman, M. | 1964 | Africans on the Land. London. |
| Yudelman, M. | 1970 | Agricultural Development and Economic Integration in Latin America. London. |
| Zabko-Potopowicz, A. | 1957 | The development of the geography of agriculture since World War I. Warsaw. |


continued.....

BIBLIOGRAPHY (continued)

OCCASIONAL PUBLICATIONS AND REPORTS


| | | |
|---|---|---|
| Amerina, P. | 1980 | The Agricultural Co-operative in the Third World Development - Paper No. 10 (London). |
| Demaine, H. | 1976 | The Role of Farmers' Associations in Agricultural Development. (London). |
| Dickie, A. | 1981 | Group Farming in North West Nigeria - DS. No. 18 (Reading). |
| FitzGerald, M. | 1980 | Drought, Famine and Revolution in Ethiopia - Paper No. 1 (London). |
| Food and Agriculture Organisation | 1968 | Agrarian Revolution - Basic Study No. 18 (Rome). |
| Food and Agriculture Organisation | 1965 | The Possibilities of African Rural Development in Relation to Economic and Social Growth. (Rome) |
| Gurdon, C. (Ed.) | 1978 | Sudan-Field Studies in Abu Gubeia (London) |
| Hodder, B. W. | 1980 | Germany's Model Colony in Africa: Togo, 1884-1914 - Paper No. 2 (London). |
| Johnson, R. W. M. | 1963 | African Cattle Problems in the Intensive Agricultural Areas of Southern Rhodesia - Paper No. 7 (Salisbury). |
| Johnson, R. W. B. | 1964 | The Labour Economy of Reserves - Paper No. 4 (Salisbury). |
| Karimu, J. and Richards, P. | 1980 | The Northern Area: Integrated Agricultural Development Project - Paper No. 3 (London). |
| Peter Thomas and Associates | 1980 | Peasant Sector Credit Plan for Zimbabwe, Volume II, (Salisbury). |
| Silveira House | 1973-1981 | Annual Reports, 1973-1981, Chishwasha (Harare) |
| Thorpe, G. B. | 1968 | The Development of Financial Credit Institutions for African Farmers in the Tribal Trust Lands of Rhodesia (Salisbury). |
| Whitsun Foundation | 1978 | A Strategy for Rural Development - Data Bank No. 2: The Peasant Sector (Project No. 1.05a, Salisbury). |

BIBLIOGRAPHY (continued)

UNPUBLISHED MATERIALS AND PAPERS DELIVERED AT CONFERENCES/SEMINARS:


| | | |
|---|---|---|
| Chitsike, L. T. | 1981 | The Co-operative Movement and Development - a general overview (Marondera) |
| Chitsike, L. T. | 1980 | Silveira House Agricultural Project (Whitsun Foundation). |
| Cook, K. L. | 1976 | Pakistan Agriculture: 25 years of Change (London). |
| Cross, E. G. | 1978 | Co-operatives as an Agency for Development (University of Rhodesia) |
| Floyd, B. N. | 1959 | Changing Patterns of African Land Use in Southern Rhodesia (Lusaka). |
| Gourou, P. | 1962 | Agriculture in the African Tropics (Oxford). |
| Harvey, R. K. | 1977 | One man, one Farm - the Case for Individual Tenure (Salisbury). |
| Hume, I. M. | 1977 | African Co-operative Societies in Rhodesia (Salisbury). |
| Hume, I. M. | 1977 | Agriculture in Rhodesia (Salisbury) |
| Hume, I. M. | 1978 | Land Reform in Rhodesia/Zimbabwe (Salisbury) |
| Hunt, A. F. | 1966 | The Economic Position of the Tribal Trust Lands (duplicated) (Salisbury). |
| Jordan, J. D. | 1966 | A Preliminary Report of an Investigation into the Master Farmer Training Scheme (unpublished). (Fort Victoria) |
| Jordan, T. W. F. | 1974 | Extension Development in Tribal Farmers: Rhodesia in the 1970s. (Fort Victoria) |
| Lu, H. | 1968 | Some socio-economic factors affecting the implementation at the farm level of a rice production program in the Philippines,(University of the Philippines.) |
| Magadzire, G. S. T. | 1977 | Savings Clubs in Rural Development (Salisbury) |


continued.....

| | | |
|---|---|---|
| Mapanga, A. M. | 1979 | Devag Trial Results in the Victoria Province - 1974-1978. |
| Mukonyora, R. B. | 1978 | Co-operative as an Agency for Development (University of Rhodesia). |
| Mukora, C. M. | 1979 | Rural Underdevelopment in Rhodesia (Zimbabwe) is a Result of Official Administrative Policy (An extended essay submitted as part of the examination for B.Sc. course unit). |
| Murton, T. A. | 1973 | The Tribal Trust Lands of Rhodesia: Some facts and figures. |
| Richards, P. | 1978 | Geography is a bottle of Heineken lager beer - How to be the most boring person in development planning and still gets your facts wrong. (University of Sussex). |
| Smith, G. A. | 1966 | Agricultural Extension Work in Rhodesia with particular reference to African Areas (cyclostyled). |
| Smith, G. A. | 1963 | The Peasant (cyclostyled) (Fort Victoria). |
| Stubbs, A. T. and Humphrey, C. D. | 1974 | Twenty Years Ahead in the Tribal Lands (cyclostyled). |
| Warren, D. M. | 1975 | Indigenous Knowledge Systems for Activating Local Decision-making Groups in Rural Development. Honolulu. |
| White-Spunner, D. | 1971 | Rural Development in Rhodesia. |


OFFICIAL DOCUMENTS, REPORTS AND LEGISLATION


| | | |
|---|---|---|
| Agricultural Finance Corporation | 1981 | Guide to Loan Facilities (Salisbury) |
| Central African Federal Government | 1962 | An Agricultural Survey of Southern Rhodesia - with particular reference to the Role of African Agriculture (Salisbury) |
| Central African Federal Government | 1962 | The Economic Development of Southern Rhodesia - with particular reference to the Role of African Agriculture (Salisbury). |
| Ministry of Agriculture | 1981 | Report of the Director of Marketing and Co-operative Services for the year 1980 |
| Ministry of Economic Planning and Development | 1981 | Growth with Equity - An Economic Policy Statement (Salisbury). |
| Ministry of Health | 1980 | Report of the Secretary for Health (Salisbury) |


continued.....

BIBLIOGRAPHY (continued)


| | | |
|---|---|---|
| Ministry of Information and Tourism | 1981 | Zimbabwe in Brief: some Basic Facts about Zimbabwe (Salisbury) |
| Ministry of Internal Affairs (Former) | 1972 and 1973 | Reports of the Secretary for Internal Affairs, for the years 1972 and 1973 (Salisbury). |
| Ministry of Lands, Resettlement and Rural Development | 1981 | Intensive Resettlement Policies and Procedures from the Ministry, 1980 (Salisbury). |
| Ministry of Lands, Resettlement and Rural Development | 1981 | The Structure and Functions of the Ministry of Lands, Resettlement and Rural Development (Salisbury). |
| Prime Minister's Office | 1965 | Local Government and Community Development: The Role of Ministries and Co-ordination (Salisbury). |

Maize Control Act, 1931.

Maize Amendment Control Act, 1934.

Cold Storage Commission Act, 1973.

African Development Fund Act, 1949.

Native Land Husbandry Act, 1955.

The Co-operative Societies Act, 1956.

Agricultural Marketing Authorities Act, 1967.

Tribal Trust Land Development Corporation Act, 1968.

Land Tenure Act, 1969.

Land Tenure Amendment Act, 1978.

PERIODICALS

Africa Magazine - Issue Nos. 1 AN and 128, April, 1982.

Agricultural Administration Network: Discussion paper no. 10 (ODI).

Agricultural Administration Network: Newsletter no. 10 (ODI).

Annals of the Association of American Geographers, Vols. 42(3), 52(3), 55(3), etc.

Europa - Africa South of the Sahara: 1978-79; 1979-80; 1980-81.

Geographical Review, Vols. 44(2), 44(4), 46(4), etc.

Journal of Farm Economics, Vol. 45(5), 46(2), etc.


continued.....

BIBLIOGRAPHY (continued)

Moto Magazine, Volume 1, No. 1, May, 1982.

New African: No. 167 (August, 1981) and No. 175 (April, 1982).

New Scientist, Volume 94, No. 1305 (13 May, 1982).

Review of African Political Economy, No. 10, September-December, 1977.

Rhodesia Agricultural Journal, Vol. 70)1), Vol. 71(2), Vol. 73(1) and Vol. 75(4).

The African Times (bi-monthly publication).

The People's Paper (a quarterly magazine).

The Quarterly Magazine for the Association of Master Farmers' Clubs.

The Rhodesian Journals of Economics, Vol. 1, No. 1 (1967), Vol. 4, No. 4 (1970), Vol. 5, No. 4 (1971).

The Rhodesia Science News, Vol. 8, No. 7, Vol. 9, No. 1, Vol. 9, No. 6, Vol. 10, No. 10, etc.

Transactions of the British Geographers, 20, 53, 56.

Zambesia, Volume 4, No. 2, (December, 1976).

Zimbabwe Project News Bulletin-Issue No. 12 (1981), No. 13 (1982), No. 20 (1982) and No. 21 (1982).